BASIS OF BEARINGS

N 89°30'25" W BETWEEN SURVEY MONUMENTS FOUND AND HELD AS SHOWN HEREON, ON THE CENTERLINE OF S.E. 60TH ST., AS CALCULATED PER TIMBERLAND NO. 2, NO. 4 & NO. 6.

REFERENCES

- R1 TIMBERLAND NO. 2, RECORDED IN VOLUME 58 OF PLATS, PAGE 27, RECORDS OF KING COUNTY, WASHINGTON.
- R2 TIMBERLAND NO. 4, RECORDED IN VOLUME 60 OF PLATS, PAGE 41, RECORDS OF KING COUNTY, WASHINGTON.
- R3 TIMBERLAND NO. 6, RECORDED IN VOLUME 68 OF PLATS, PAGE 15, RECORDS OF KING COUNTY, WASHINGTON.

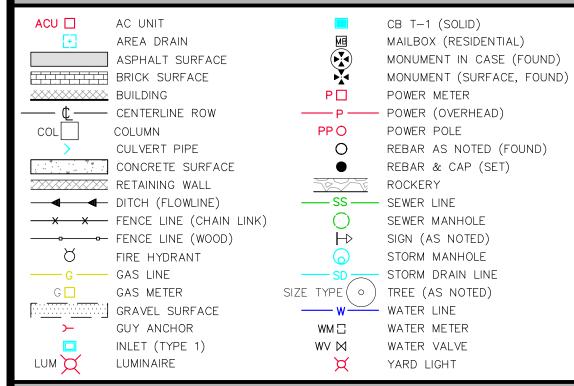
VERTICAL DATUM

NAVD(88) PER CITY OF MERCER ISLAND BENCHMARK NO. 1064 4" X 4" CONCRETE POST WITH BRASS NAIL IN CASE DOWN 1.0', NORTHERLY MOST OF 2 MONUMENTS IN CUL-DE-SAC OF S.E. 60TH ST

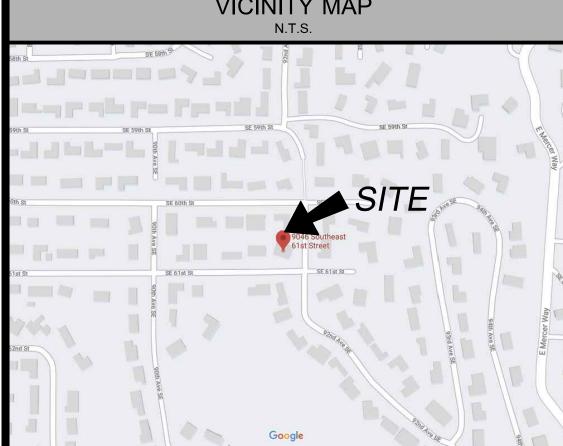
SURVEYOR'S NOTES

- 1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN JUNE OF 2020. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
- 2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
- 3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
- 4. SUBJECT PROPERTY TAX PARCEL NO. 865090-0045.
- 5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 11,233 ±S.F. (0.26 ACRES)
- 6. THE PROPERTY DESCRIBED HEREON IS THE SAME AS THE PROPERTY DESCRIBED IN CHICAGO TITLE COMPANY, COMMITMENT NO. 0172176-ETU, WITH AN EFFECTIVE DATE OF MAY 12, 2020 AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT OR APPARENT FROM A PHYSICAL INSPECTION OF THE PROPERTY OR OTHERWISE KNOWN TO ME HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR EFFECT ON THE PROPERTY.
- 7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

LEGEND



VICINITY MAP



TOPOGRAPHIC & BOUNDARY SURVEY

SCHEDULE B ITEMS

. COVENANTS, CONDITIONS, RESTRICTIONS, RECITALS, RESERVATIONS, EASEMENTS, EASEMENT PROVISIONS, DEDICATIONS, BUILDING SETBACK LINES, NOTES, STATEMENTS, AND OTHER MATTERS, IF ANY, BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY. INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR

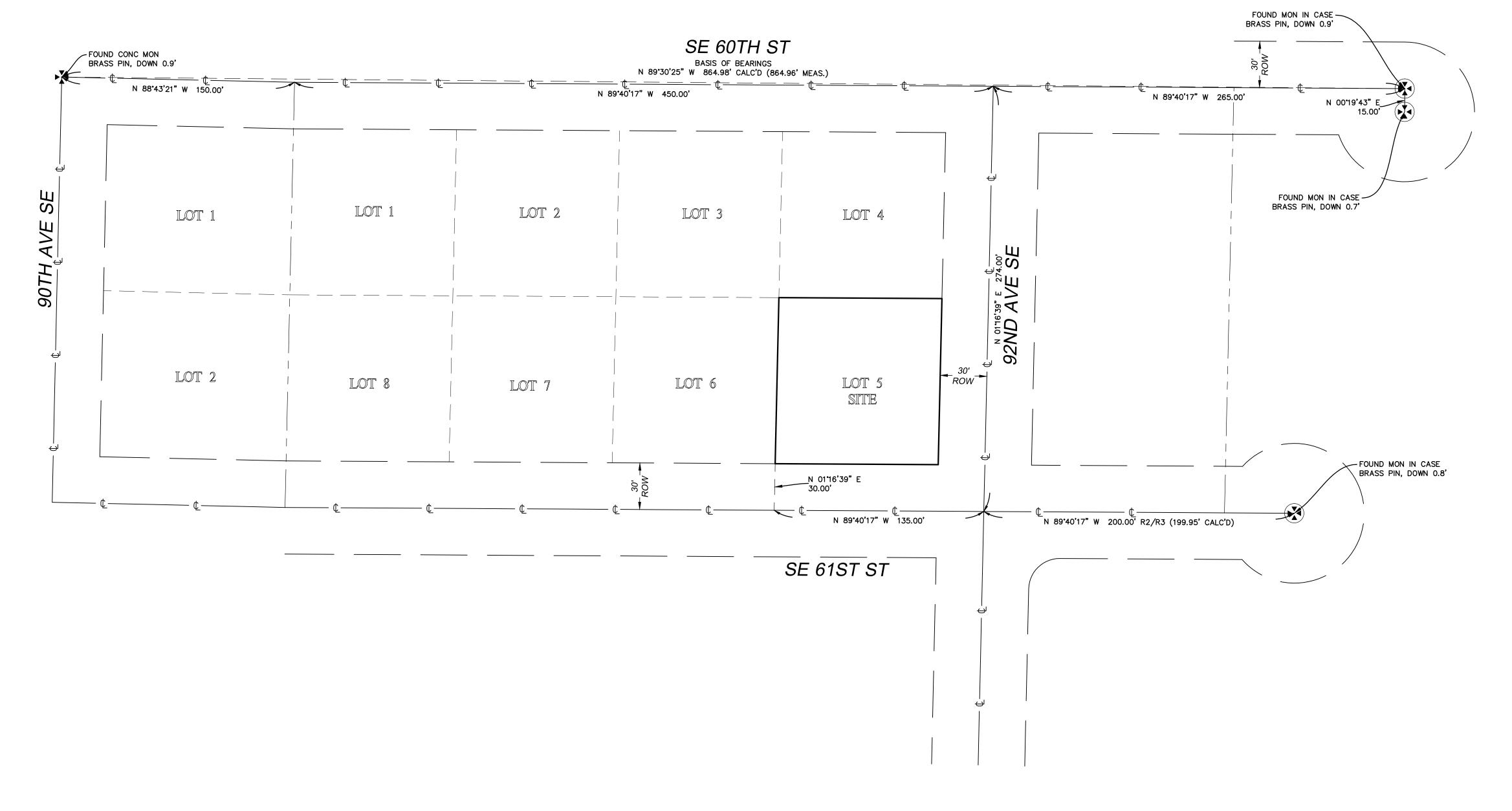
LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH ON THE PLAT OF

TIMBERLAND NO. 4: RECORDING NO: 4914687 (CURRENT CONDITIONS SHOWN)

2. COVENANTS, CONDITIONS, RESTRICTIONS AND EASEMENTS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, SOURCE OF INCOME, GENDER, GENDER IDENTITY, GENDER EXPRESSION, MEDICAL CONDITION OR GENETIC INFORMATION, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT

SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT RECORDING DATE: JULY 28, 1958

RECORDING NO.: 4926640 (PLOTTED BUILDING SETBACK LINE)



STEEP SLOPE/BUFFER DISCLAIMER:

THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.



CONTROL MAP

SURVI 05E., W.M.

BOUNDARY

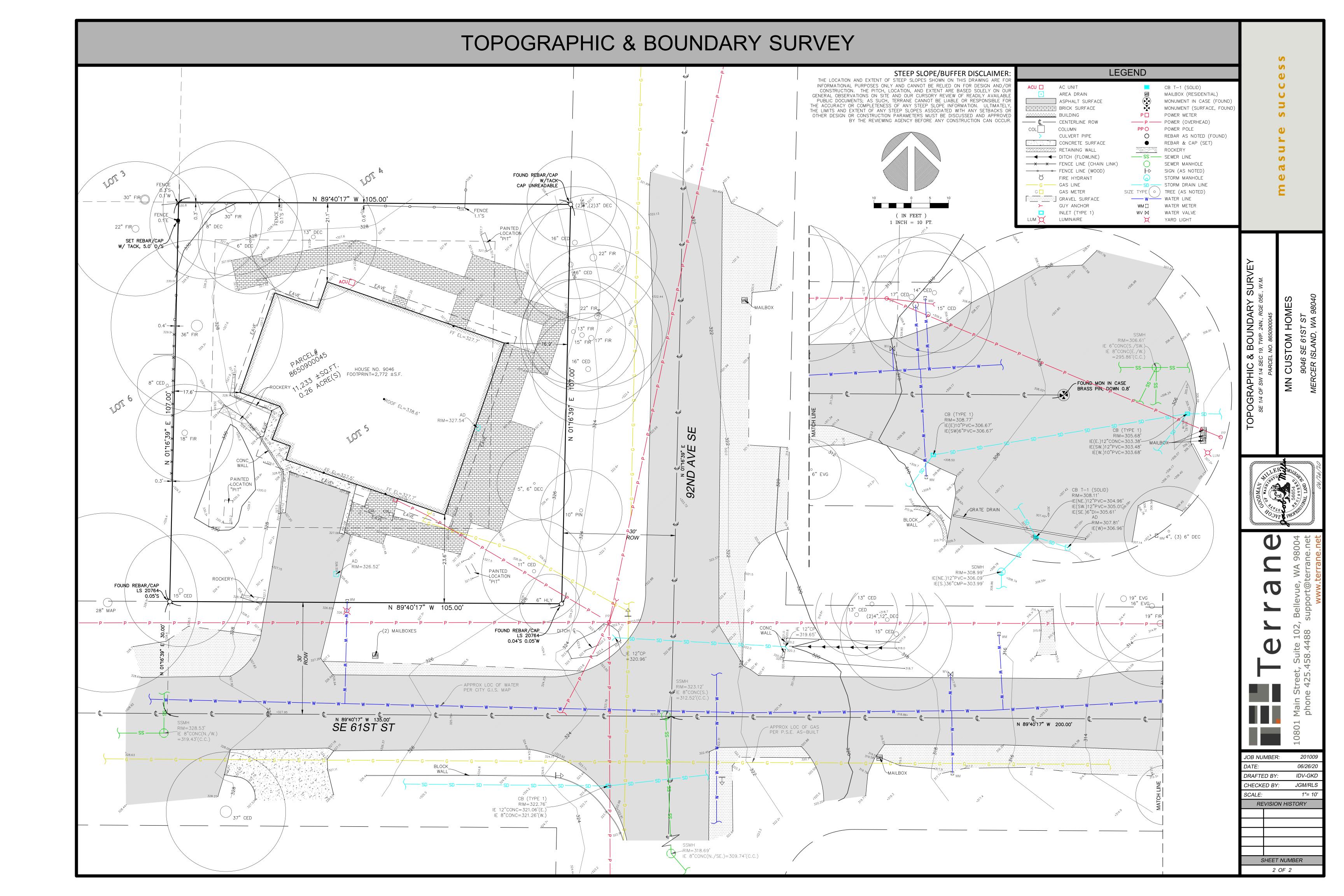
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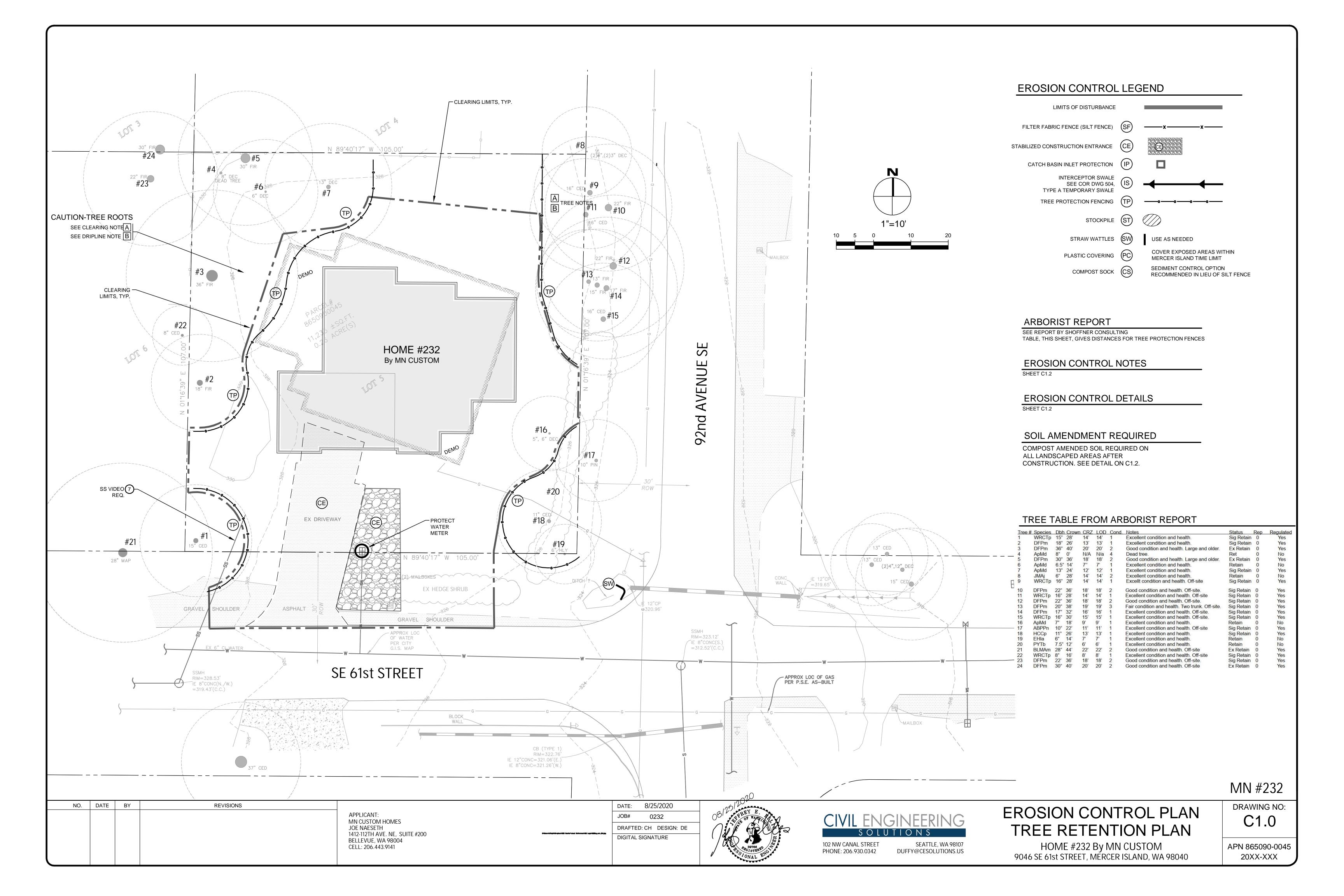
HOMEST ST AND ASO,

201009 JOB NUMBER: 06/26/20 DRAFTED BY: IDV-GKD JGM/RLS CHECKED BY. N.T.S.

REVISION HISTORY

SHEET NUMBER 1 OF 2



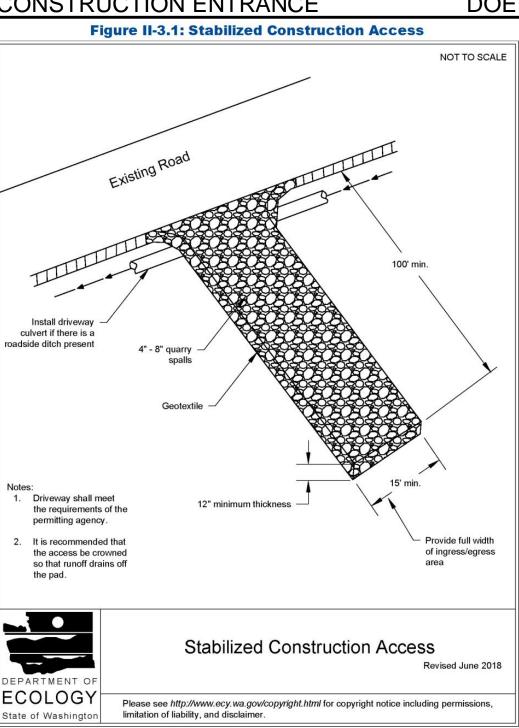


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CONSTRUCTION ENTRANCE



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RECOMMENDED CONSTRUCTION SEQUENCE

A DETAILED CONSTRUCTION SEQUENCE IS NEEDED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A RECOMMENDED CONSTRUCTION SEQUENCE IS PROVIDED BELOW:

1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.

2. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).

3. FLAG OR FENCE CLEARING LIMITS.

4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.

5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).

6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).

7. CONSTRUCT SEDIMENT PONDS AND TRAPS.

8. GRADE AND STABILIZE CONSTRUCTION ROADS.

9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.

10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.

11. RELOCATE SURFACE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH CITY OF MERCER ISLAND TESC REQUIREMENTS.

12. COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.

13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.

14. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.

15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.

DENUDED AREAS REQUIREMENTS

APRIL 1 TO SEPT 30

ALL DENUDED AREAS MUST BE STABILIZED WITHIN 7 DAYS OF CONSTRUCTION. PLEASE READ ALL CITY TESC NOTES ON SHEET C1.2.

OCT 1 TO MARCH 31

ALL DENUDED AREAS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING. IF AN EROSION PROBLEM ALREADY EXISTS ON THE SITE, OTHER COVER PROTECTION AND EROSION CONTROL WILL BE REQUIRED.

EROSION CONTROL NOTES

D.8.2 STANDARD ESC PLAN NOTES

THE STANDARD ESC PLAN NOTES MUST BE INCLUDED ON ALL ESC PLANS. AT THE APPLICANT'S DISCRETION, NOTES THAT IN NO WAY APPLY TO THE PROJECT MAY BE OMITTED; HOWEVER, THE REMAINING NOTES MUST NOT BE RENUMBERED. FOR EXAMPLE, IF ESC NOTE #3 WERE OMITTED, THE REMAINING NOTES SHOULD BE NUMBERED 1, 2, 4, 5, 6, ETC.

1. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND

UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.

3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.

4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.

5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.

6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY CITY OF MERCER ISLAND.

7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.

8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).

9. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION

10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.

11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.

12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.

13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL

14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

CITY NOTES

- ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
- APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
- CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.
- 4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITES.
- 5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555
- 6. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED
- EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE:
- 8. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES.
- 9. CONSTRUCTION ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.
- 10. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
- 11. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.
- 12. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.
- 13. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.
- 14. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
- 15. REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.
- 16. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
- 17. SILENT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.
- 18. WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.
- 19. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
- 16. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION.
- 20. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
- 21. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC
- 22. THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE

MN #232

NO. DATE BY **REVISIONS**

APPLICANT: MN CUSTOM HOMES JOE NAESETH 1412-112TH AVE. NE. SUITE #200 BELLEVUE, WA 98004 CELL: 206.443.9141

DATE: 8/25/2020

DIGITAL SIGNATURE

0232

DRAFTED: SS DESIGN: DE

JOB#



102 NW CANAL STREET

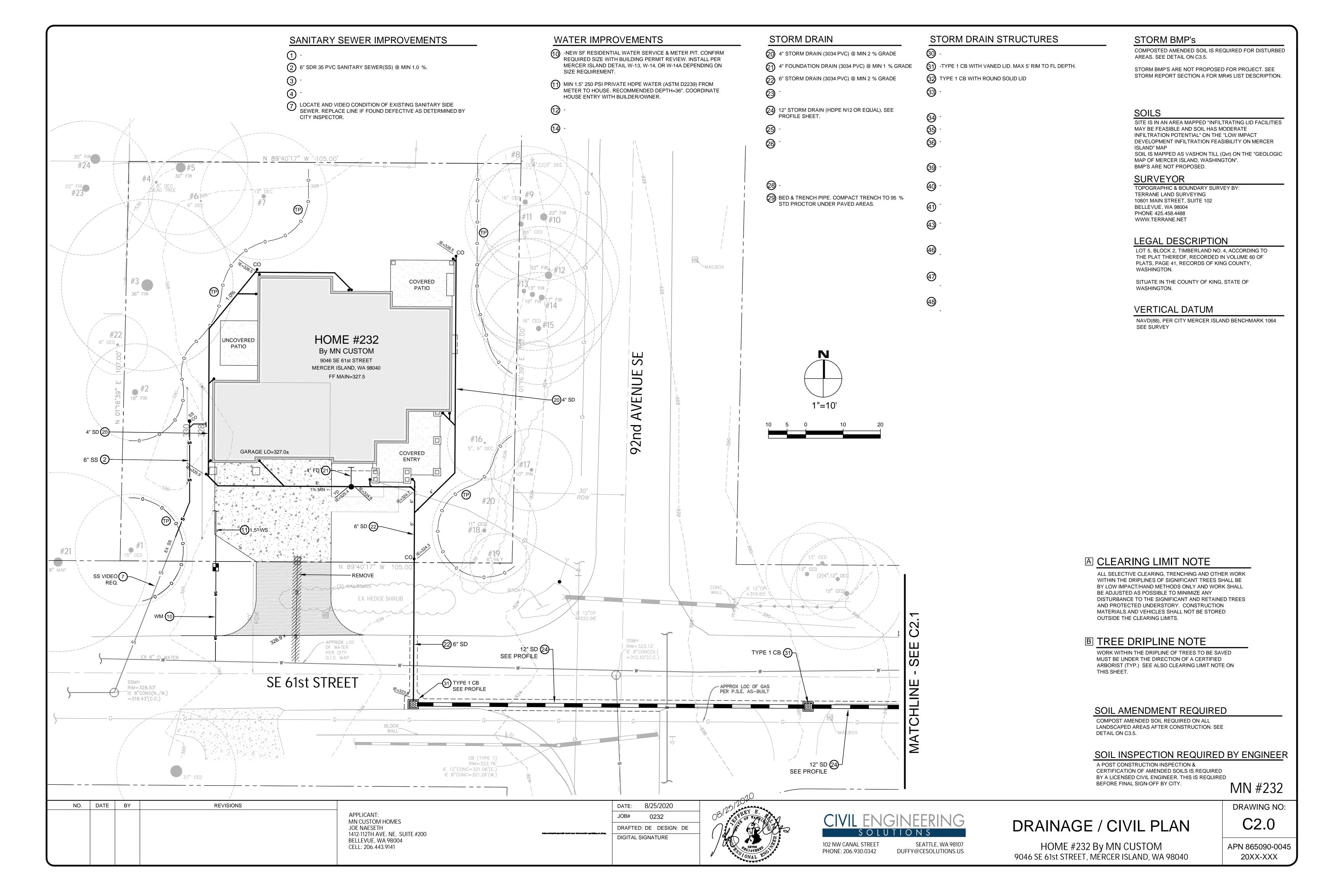
PHONE: 206.930.0342

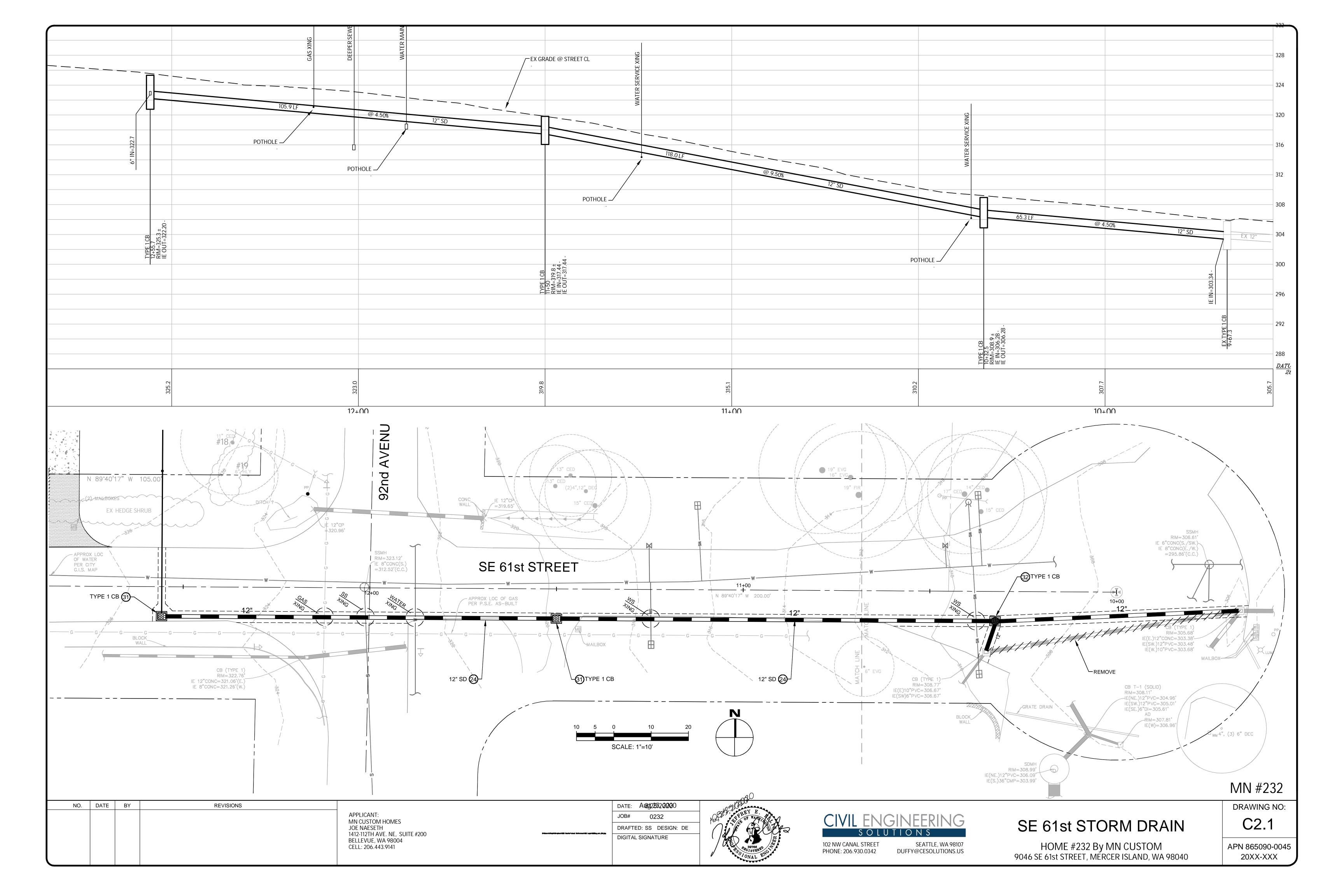
SEATTLE, WA 98107 DUFFY@CESOLUTIONS.US **TESC & CITY NOTES** TESC DETAILS HOME #232 By MN CUSTOM

9046 SE 61st STREET, MÉRCER ISLAND, WA 98040

DRAWING NO:

APN 865090-0045 20XX-XXX





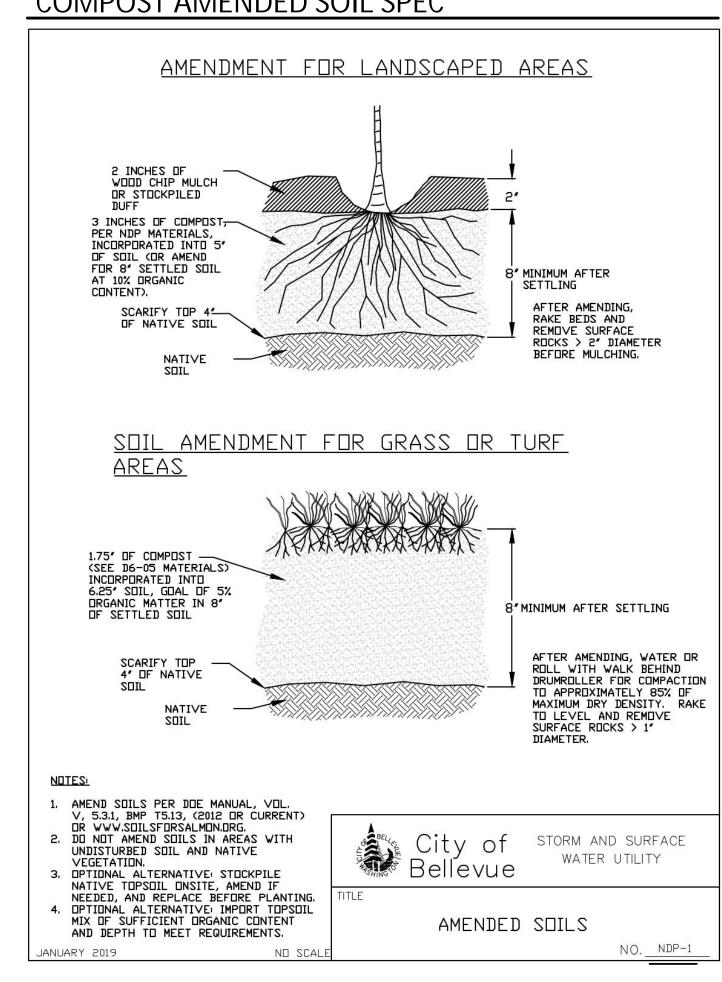
SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

COMPOST AMENDED SOIL SPEC

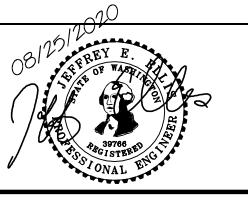


MN #232

NO. DATE BY REVISIONS

APPLICANT: MN CUSTOM HOMES JOE NAESETH 1412-112TH AVE. NE, SUITE #200 BELLEVUE, WA 98004 CELL: 206.443.9141

DATE: 8/25/2020 0232 JOB# DRAFTED: SS DESIGN: SS DIGITAL SIGNATURE



SOLUTIONS SEATTLE, WA 98107 DUFFY@CESOLUTIONS.US 102 NW CANAL STREET

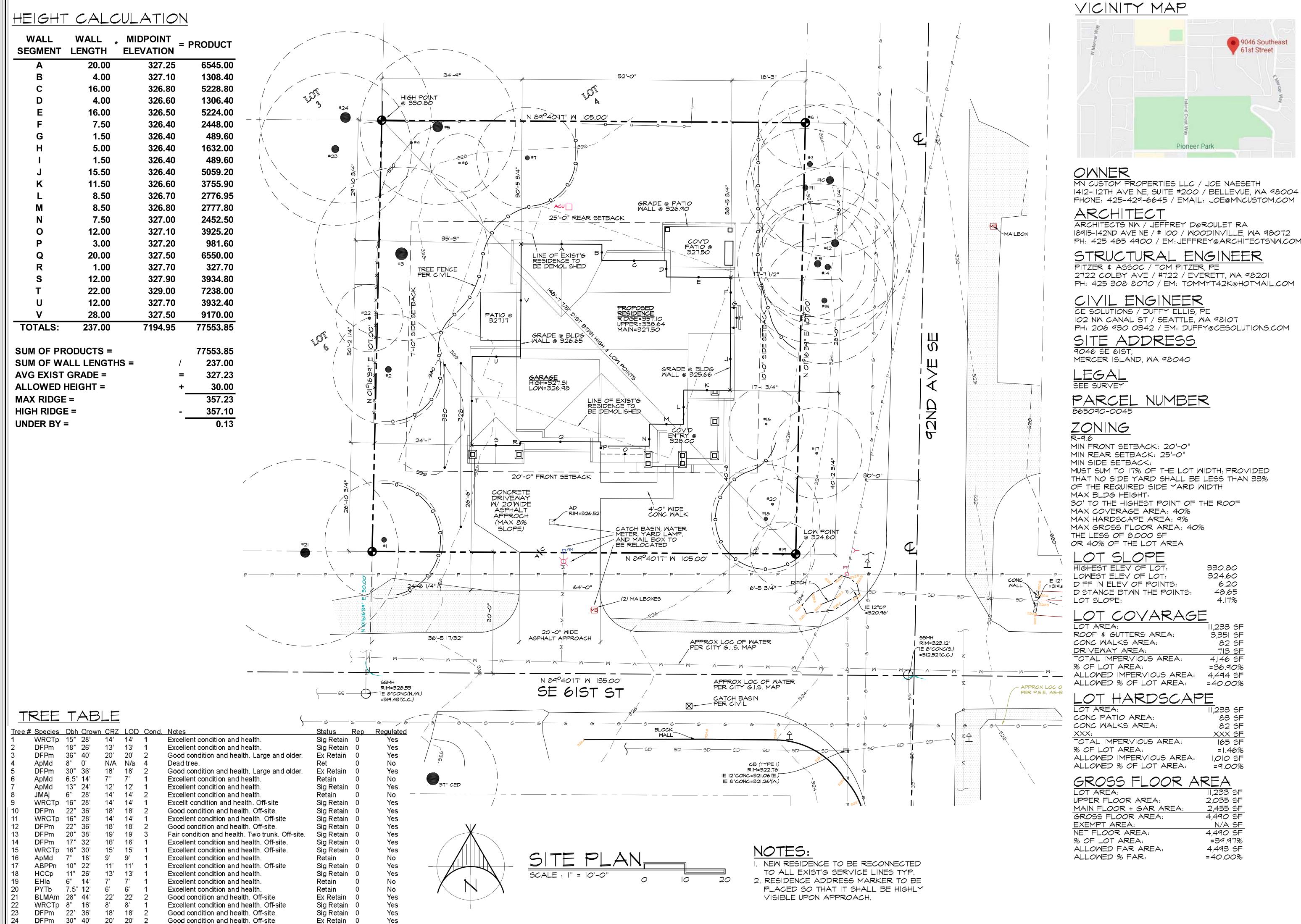
PHONE: 206.930.0342

BMP DETAILS

HOME #232 By MN CUSTOM 9046 SE 61st STREET, MERCER ISLAND, WA 98040

DRAWING NO:

APN 865090-0045 20XX-XXX





ARE PROPERTY AND A PR

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DESIGNED BY: TROY 2018 DRAWN BY: CMB 8/24/20 PROJECT MANAGER: TROY CLYMER REVISED BY:

P&A LATERAL JOB NUMBER:



ANW WOODINVILLE OFFICE JOB NUMBER: 200146

CLIMATE ZONE	5 \$ MARINE 4	WITH USE OF CREDIT IA
FENESTRATION U-FACTOR B	0.30	0.28
SKYLIGHT B U-FACTOR	0.50	
GLAZED FENESTRATION SHGC BE	NR	
CEILING R-VALUE K	49	
MOOD FRAME WALL GMN R-VALUE	2I INT	
MASS WALL R-VALUE	21/21	
FLOOR R-VALUE	30	38
BELOW GRADE CM WALL R-VALUE	10/15/21 INT + TB	R-IO PERIMETER & ENTIRE SLAB
SLAB ^P R-VALUE & DEPTH	10, 2 FT.	R-IO PERIMETER & ENTIRE SLAB

FOR SI: I FOOT = 304.8 MM, CI = CONTINUOUS INSULATION, INT. = INTERMEDIATE FRAMING.

A R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE COMPRESSED R-VALUE OF THE INSULATION FROM APPENDIX TABLE AIOI.4 SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

^B THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS. THE SHGC COLUMN APPLIES TO ALL GLAZED FENESTRATION.

[©] "IO/15/21.+TB" MEANS R-IO CONTINUOUS INSULATION ON THE EXTERIOR OF THE WALL, OR R-15 ON THE CONTINUOUS INSULATION ON THE INTERIOR OF THE WALL, OR R-21 CAVITY INSULATION PLUS A THERMAL BREAK BETWEEN THE SLAB AND THE BASEMENT WALL AT THE INTERIOR OF THE BASEMENT WALL. "10/15/21.+TB" SHALL BE PERMITTED TO BE MET WITH R-13 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL PLUS R-5 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE WALL. "TB" MEANS THERMAL BREAK BETWEEN FLOOR SLAB AND BASEMENT WALL.

PR-10 CONTINUOUS INSULATION IS REQUIRED UNDER HEATED SLAB ON GRADE FLOORS. SEE R402.2.9.1.

E THERE ARE NO SHGC REQUIREMENTS IN THE MARINE ZONE.

F RESERVED

⁶ RESERVED

" RESERVED

'THE SECOND R-VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR OF THE MASS WALL.

J RESERVED

K FOR SINGLE RAFTER- OR JOIST VAULTED CEILINGS, THE INSULATION MAY BE REDUCED TO

L RESERVED

M INT. (INTERMEDIATE FRAMING) DENOTES STANDARD FRAMING 16 INCHES ON CENTER WITH HEADERS INSULATED WITH A MINIMUM OF R-10 INSULATION.

N LOG AND SOLID TIMBER WALLS WITH A MINIMUM AVERAGE THICKNESS OF 3.5 INCHES ARE EXEMPT FROM THIS INSULATION REQUIREMENT.

- A CERTIFICATE COMPLYING WITH 2015 WSEC R401.3 IS REQUIRED TO BE COMPLETED BY
- THE DESIGN PROFESSIONAL OR BUILDER AND PERMANENTLY POSTED. 2. THE BUILDING SHALL BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HOUR. TESTING SHALL BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2 INCHES W.G.
- EACH DWELLING UNIT IS REQUIRED TO BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR THE REGULATION OF TEMPERATURE.
- 4. DUCTS SHALL BE LEAK TESTED IN ACCORDANCE WITH WSU RS-33 USING THE MAX. DUCT LEAKAGE RATES SPECIFIED.
- 5. A MINIMUM OF 75% OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

WHOLE HOUSE VENTILATION

WHOLE HOUSE VENTILATION SYSTEM TO BE INSTALLED PER 2015 IRC SECTIONS MI507.3.1 THROUGH MI507.3.7.

SEE "WHOLE HOUSE VENTILATION" ON THE SCHEDULE SHEET FOR SELECTED OPTION.

IRC TABLE MI507.3.3(I) CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS (AIRFLOW IN CFM)

FLOOR AREA	NUMBER OF BEDROOMS										
(SQ. FT.)	0 - 1	2 - 3	4 - 5	6 - 7	>7						
<15 <i>00</i>	30	45	60	75	90						
1501 - 3000	45	60	75	90	105						
3001 - 4500	60	75	90	105	120						
4501 - 6000	75	90	105	120	135						
6001 - 7500	90	105	120	135	150						
>7500	105	120	135	150	165						

IRC TABLE MI507.3.3(2)

IN	ITERMITTENT WHOLE-HOUSE MECH	ANICAL	_ VENT	ILATIO	N RAT	E FACT	ORS A
	RUN TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	25%	33%	50%	66%	75%	100%
	FACTOR	4	3	2	1.5	1.3	1.0

A. FOR VENTILATION SYSTEM RUN TIME VALUES BETWEEN THOSE GIVEN, THE FACTORS ARE PERMITTED TO BE DETERMINED BY INTERPOLATION.

B. EXTRAPOLATION BEYOND THE TABLE IS PROHIBITED.

MECHANICAL

GENERAL

SOLID FUEL BURNING APPLIANCES INCLUDE AIRTIGHT STOVES, FIREPLACE STOVES, ROOM HEATERS, FACTORY BUILT FIREPLACES AND FIREPLACE INSERTS. ALL SOLID FUEL BURNING APPLIANCES SHALL COMPLY WITH THE PROVISIONS OF I.R.C. RIOO6.2.

EACH DWELLING UNIT SHALL BE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A TEMPERATURE OF 68 DEGREES FAHRENHEIT AT A HEIGHT OF 3'-O" ABOVE THE FLOOR AND TWO FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS WHEN THE OUTSIDE TEMPERATURE IS AS SET FORTH IN THE 2015 W.S.E.C.

DEFINITION OF THERMAL BUILDING ENVELOPE FROM THE 2015 WASHINGTON STATE ENERGY CODE: THE BELOW-GRADE WALLS, ABOVE-GRADE WALLS, FLOOR, ROOF, AND ANY OTHER BUILDING ELEMENTS THAT ENCLOSE CONDITIONED SPACE OR PROVIDES A BOUNDARY BETWEEN CONDITIONED SPACE AND EXEMPT OR UNCONDITIONED SPACE.

- FUEL BURNING APPLIANCES LOCATED WITHIN THE BUILDING ENVELOPE SHALL OBTAIN AIR
- FROM OUTDOORS, MEETING THE PROVISIONS OF CHAPTER 24 OF THE 2015 IRC. FUEL BURNING APPLIANCES LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL MEET THE PROVISIONS OF CHAPTER 24 OF THE 2015 IRC.
- DUCTWORK LOCATION SHALL MEET THE PROVISIONS OF CHAPTER 24 OF THE 2015 IRC. 4. COMBUSTION AIR TO MEET THE REQUIREMENTS OF I.R.C. MITOI.

ALL WARM AIR FURNACES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY AND INSTALLED PER CHAPTER MI302 OF THE 2015 IRC.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE, EXCEPT DIRECT VENT FURNACE, ENCLOSED FURNACES, AND ELECTRIC HEATING FURNACES.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A CLOSET OR ALCOVE WITH A SPACE LESS THAN 12" MIDER THAN THE FURNACE OR A CLEARANCE OF 3" ALONG THE SIDES, BACK AND TOP.

LIQUEFIED PETROLEUM GAS BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GASES MIGHT COLLECT. APPLIANCES SO FUELED SHALL NOT BE INSTALLED IN AN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT UNLESS SUCH LOCATION IS PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED

HEATING AND COOLING APPLIANCES LOCATED IN A GARAGE AND WHICH GENERATE A GLOW, SPARK OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED WITH THE PILOTS AND BURNERS OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR SURFACE.

FIRE DAMPERS NEED NOT BE INSTALLED IN AIR DUCTS PASSING THROUGH THE WALL, FLOOR OR CEILING SEPARATING A RESIDENCE (R-3 OCCUPANCY) FROM A GARAGE, PROVIDED SUCH DUCTS WITHIN THE GARAGE ARE CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN O.019" (NO. 26 GALVANIZED SHEET GAUGE) AND HAVE NO OPENINGS INTO THE GARAGE

EVERY APPLIANCE DESIGNED TO BE VENTED SHALL BE CONNECTED TO A VENTING SYSTEM COMPLYING WITH CHAPTER IS OF THE 2015 IRC.

EVERY FACTORY BUILT CHIMNEY, TYPE L VENT, TYPE B GAS VENT OR TYPE BW GAS VENT SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING, MANUFACTURERS INSTALLATION INSTRUCTIONS AND THE REQUIREMENTS PER CHAPTER 24 OF THE 2015 IRC.

A TYPE B OR BW GAS VENT SHALL TERMINATE PER CHAPTER 24 OF THE 2015 IRC.

YENT CONNECTORS SHALL BE INSTALLED WITHIN THE SPACE OR AREA IN WHICH THE APPLIANCE IS LOCATED AND SHALL BE CONNECTED TO A CHIMNEY OR VENT IN SUCH A MANNER AS TO MAINTAIN THE CLEARANCE TO COMBUSTIBLES PER SECTION MISOS OF THE 2015 IRC.

HEATING EQUIPMENT

ALL HEATING EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE 2015 NATIONAL APPLIANCE ENERGY CONSERVATION ACT (NAECA) AND BE SO LABELED. EQUIPMENT SHALL ALSO COMPLY WITH SECTION MI4II OF THE 2015 IRC

<u>DUCTMORK</u>

- DUCT SYSTEMS OR FACTORY BUILT AIR DUCTS SHALL BE OF METAL AS SET FORTH BY
- TABLE 1601.1.1 OF THE 2015 IRC. 2. RECTANGULAR, FLAT, OVAL AND ROUND DUCT JOINTS AND SEAMS SHALL BE AIRTIGHT PER
- SECTION MIGOI.4.1 OF THE 2015 IRC. INSTALLATION OF DUCTS SHALL COMPLY WITH SECTION MI601.4 OF THE 2015 IRC.
- DUCT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH SECTION MIGOLS OF THE 2015
- 5. FINAL DUCT LEAKAGE AFFIDAVIT IS TO BE PROVIDED TO THE BUILDING INSPECTOR PRIOR
- SECTION R403.3.2 TO BE MET. 6. DUCTS INSULATAED TO A MINIMUM R-8 INSULATION IN UNCONDITIONED SPACES PER M.S.E.C.

TO FINAL INSPECTION. DUCT LEAKAGE AND SEALING REQUIREMENTS IN 2015 M.S.E.C.

CARPENTRY

SECTION R403.3.1

GENERAL

ALL FRAMING SHALL COMPLY WITH THE APPLICABLE SECTION(S) OF THE 2015 IBC/IRC. PRESSURE TREATED WOOD REQUIRED IN LOCATIONS LISTED IN IRC RSI7.1

- 2" MINIMUM VERTICAL CLEARANCE BETWEEN WOOD & CONCRETE STEPS, PORCH SLABS, PATIO SLABS & OTHER SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER. 6" MINIMUM CLEARANCE BETWEEN WOOD AND EARTH.
- 8" MINIMUM CLEARANCE BETWEEN UNTREATED MUSILLS AND EARTH. 12" MINIMUM CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
- 18" MINIMUM CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

<u>LOADING</u>

ROOF	15 PSF DEAD LOAD	+	25 PSF LIVE LOAD	=	40 PSF
FLOOR	IO PSF DEAD LOAD	+	40 PSF LIVE LOAD	=	50 PSF
CEILING	5 PSF DEAD LOAD	+	IO PSF LIVE LOAD	=	15 PSF
DECK	5 PSF DEAD LOAD	+	60 PSF LIVE LOAD	=	65 PSF
INTERIOR PARTITION				=	7 PSF
EXTERIOR PARTITION				=	10 PSF

WOOD BEARING ON OR INSTALLED WITHIN 2" OF MASONRY OR CONCRETE TO BE TREATED WITH AN APPROVED PRESERVATIVE. SOLID BLOCKING OF NOT LESS THAN 2x THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORT OF JOISTS AND RAFTERS. ANCHOR BOLTS TO BE PER SHEAR WALL SCHEDULE AND FOUNDATION PLAN. 7" MINIMUM EMBEDMENT. ALL METAL FRAMING ANCHORS AND HANGERS SHOWN ON DRAWINGS SHALL BE STRONG TIE CONNECTORS AS MANUFACTURED BY SIMPSON COMPANY.

PROVIDE FIREBLOCKING IN CONCEALED SPACES OF STUD WALLS & PARTITIONS, INCLUDING FURRED SPACES & PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:

VERTICALLY AT THE CEILING & FLOOR LEVELS. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.

PROVIDE FIREBLOCKING AT OTHER LOCATIONS PER 2015 IRC R302.II.

INSULATION & MOISTURE PROTECTION GENERAL

<u>GENERAL</u>

UNLESS NOTED OTHERWISE. INSULATION SHALL CONFORM TO THE WASHINGTON STATE ENERGY CODES. INSULATION BAFFLES TO MAINTAIN I" CLEAR SPACE ABOVE INSULATION. BAFFLES TO EXTEND 6" ABOVE BATT INSULATION \$ 12" ABOVE LOOSE FILL INSULATION. INSULATE BEHIND BATHTUBS, SHOWERS, PARTITIONS AND CORNERS. PROVIDE FACE STAPLED BATTS OR FRICTION FIT FACED BATTS. PROVIDE 4 MIL (0.004") POLYETHYLENE VAPOR BARRIER AT WALLS OR USE PVA PRIMER WITH A DRY CUP PERM RATING OF ONE (MAX.). PROVIDE R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

INFILTRATION CONTROL

- EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AND ROOF AND BETWEEN WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOORS, AND ROOF, AND ALL OTHERS SUCH OPENINGS IN THE BUILDING ENVELOPE, INCLUDING ACCESS PANELS INTO UNHEATED SPACES, SHALL BE SEALED, CAULKED, GASKETED OR WEATHER-STRIPPED TO LIMIT AIR INFILTRATION.
- ALL EXTERIOR DOORS, OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR INFILTRATION AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED "FIRE-RATED" AND MUST MEET THE ABOVE REQUIREMENT.
- ALL EXTERIOR WINDOWS SHALL BE DESIGNED TO ADMIT AIR INFILTRATION INTO OR FROM THE BUILDING ENVELOPE WHICH SHALL BE SUBSTANTIATED BY TESTING TO STANDARD ASTM E 283.73. SITE BUILT AND MILLWORK SHOP MADE WOODEN SASH ARE EXEMPT FROM TESTING BUT SHALL BE WEATHER-STRIPPED, CAULKED AND MORE TIGHTLY FITTING. 4. RECESSED LIGHT FIXTURES TO LIMIT AIR LEAKAGE PER M.S.E.C.

PIPING FOR HOT WATER / STEAM SYSTEMS OF PIPING FOR CONTINUOUSLY CIRCULATING HOT WATER SERVICE IS REQUIRED TO BE INSULATED PER THE W.S.E.C. HOT WATER PIPING SHALL BE INSULATED TO A MINIMUM OF R-3 PER W.S.E.C. R403.5.3. MECHANICAL SYSTEM PIPING SHALL BE INSULATED TO A MINIMUM R-6 PER W.S.E.C. R403.4

VAPOR BARRIERS / GROUND COVERS

AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND AT EXTERIOR WALLS. INSET STAPLED BATTS WITH A PERM RATING LESS THAN ONE MAY BE INSTALLED IF THE VAPOR BARRIER IS TO THE WARM SIDE, STAPLES SHALL BE PLACED NOT MORE THAN 8" O.C. AND GAPS BETWEEN THE FACING AND THE FRAMING SHALL NOT EXCEED 1/16"

VAPOR RETARDERS AT WALLS PER IRC R702.7

A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

PLANS COMPLY WITH THE 2015 INTERNATIONAL RESIDENTIAL CODE.

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN MADE. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY ALL DISCREPANCIES TO THE ARCHITECT AT THE TIME THEY ARE NOTED. DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.

- ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION SHALL BE FOLLOWED 2015 INTERNATIONAL RESIDENTIAL CODE (IRC) WITH WASHINGTON STATE AMENDMENTS
- (MSA) EXCEPT CHAPTERS II AND 25 THROUGH 42 ARE NOT ADOPTED. WAC 51-51 2. 2015 INTERNATIONAL BUILDING CODE (IBC) WITH WASHINGTON STATE AMENDMENTS (WSA)
- MAC51-50 2015 INTERNATIONAL MECHANICAL CODE (IMC) WITH WASHINGTON STATE AMENDMENTS
- (MSA) MAC 51-52 2015 UNIFORM PLUMBING CODE (UPC) WITH WASHINGTON STATE AMENDMENTS, WAC 51-56.
- 5. 2015 INTERNATIONAL FIRE CODE WITH WASHINGTON STATE AMENDMENTS, WAC 51-54A. 6. 2015 WASHINGTON STATE ENERGY CODE, RESIDENTIAL PROVISIONS (WSEC). WAC 51-11R.

OCAL JURISDICTION REQUIRES	
WELLING UNIT FIRE SPRINKLER	
YSTEM PER IRC APPENDIX R	

SITE WORK

ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. ALL BACK FILL MATERIAL SHALL BE THOROUGHLY COMPACTED. FOUNDATION VENTS SHALL NOT INTERFERE WITH THE DIRECT LOAD PATH OF COLUMNS.

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

	MIND DESIGN					SUBJECT TO	DAMA	GE FROM		ICE BARRIER			
GROUND SNOW LOAD	SPEED (MPH)	TOPO- GRAPHIC EFFECTS	SPECIAL WIND REGION	WIND-BORNE DEBRIS ZONE	SEISMIC DESIGN CATEGORY	WEATHERING	FROST LINE DEPTH	TERMITE	WINTER DESIGN TEMP	UNDER-	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
25 psf	85				D2	MODERATE	18"	SLIGHT TO MODERATE		NO			
			EQUIVALE	ENT FLUID F	PRESSUF			INRESTRA (RESTRA					

DOORS, WINDOWS AND SKYLIGHTS

GENERAL

THE REQUIRED EGRESS DOOR MAY HAVE A MAXIMUM 7 3/4" STEP ON THE EXTERIOR SIDE FROM TOP OF THE THRESHOLD TO A MINIMUM 36" DEEP LANDING ON THE EXTERIOR SIDE OF THE DOOR. PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING, PER RSII.S.I OTHER EXTERIOR DOORS MAY HAVE A MAXIMUM (2) 7 3/4" STEPS TO A MIN. 36" DEEP LANDING. ALL GLAZING SHALL MEET THE REQUIREMENTS OF THE 2015 W.S.E.C. TABLE R402.1.1 UNLESS NOTED OTHERWISE. ALL SKYLIGHTS AND SKYWALLS SHALL HAVE LAMINATED GLASS UNLESS NOTED OTHERWISE. ALL BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. MINIMUM NET CLEAR OPERABLE WIDTH OF 20" AND A MINIMUM NET CLEAR OPENING HEIGHT OF 24", MAXIMUM SILL HEIGHT OF 44" MEASURED FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR OPENING. OPERABLE WINDOWS WITH A SILL OF MORE THAN 72" ABOVE FINISHED THE GRADE OR SURFACE BELOW, TO BE A MINIMUM OF 24" ABOVE ADJACENT FINISHED FLOOR.

SAFETY GLAZING LOCATIONS PER 2015 IRC SECTION R308.4

- GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD R308.4.1 DOORS.
- R308.4.2 GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR \$ THE GLAZING IS EITHER WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION OR ON A WALL PERPENDICULAR TO THE PLANE OF THE DOOR IN A CLOSED POSITION & WITHIN 24 INCHES OF THE HINGE
- SIDE OF AN IN-SWINGING DOOR. R308.4.3 GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
 - I. THE EXPOSED AREA OF AN INDIVIDUAL PANEL IS LARGER THAN 9 SQUARE FEET; 2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN IS" ABOVE THE FLOOR; 3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR; AND 4. ONE OR MORE WALKING SURFACES ARE WITHIN 36" MEASURED HORIZONTALLY
- AND IN A STRAIGHT LINE, OF THE GLAZING. R308.4.4 GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A
- WALKING SURFACE. GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR FACING HOT TUBS, SPAS, WHIRPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR
- R308.4.6 GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES (914 MM) ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS AND RAMPS.
 - GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60" HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING.

FOR EXCEPTIONS SEE IRC SECTION R308.4

WALKING SURFACE.

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DESIGNED BY TROY 2018 DRAWN BY: CMB 8/24/20 PROJECT MANAGER: TROY CLYMER

REVISED BY:

ATERAL BY: P&A LATERAL JOB NUMBER:

18-155

NW WOODINVILLE OFFICE JOB NUMBER:

200146

FOOTNOTE a IN ADDITION, INSPECTION OF LOG WALLS SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF ICC-400.

ROOF VENTILATION Standard Truss / Scissor Truss Roof Framing Assembly: Roof Area: UPPER ROOF Ventilation Required: 1916 s.f. x 144 / 300 = 919.68 s.i. Reg'd Provide between 40% & 50% of the total required ventilation no more than 3 ft below the ridge or the highest point of the space. Remainder to be installed at eave vents Upper Roof Ventilation: AF50 Roof Jack (10" x 7") = 50.00 s.i. each. Upper Ventilation MINIMUM = 919.68 s.i. x 0.4 / s.i. of each vent = 8 vents 919.68 s.i. x 0.5 / s.i. of each vent = Upper Ventilation MAXIMUM = 9 vents 9 -10"x7" roof jacks. Ventilation = 450.00 s.i. Ventilation area remainder for eave vents = 469.68 s.i. (Reg'd vent-Upper ven Eave Ventilation: 4.47 s.i. per l. Birdblocking: (3)2.25" dia holes per bay = 5.96 s.i. per l.f. - 25% reduction = 105.07 l.f. Eave Ventilation Required = 469.68 s.i. / 4.47 s.i. per l.f. = 473.82 s.i. Provide Minimum 106 l.f. birdblocking. Ventilation = 923.82 s.i. IS GREATER THAN 919.68 s.i. Req'd Minimum Ventilation Provided =

ROOF VENTILATION	ON	
Standard Truss / Scissor Truss Roof Fra	aming Assembly:	
Roof Area : ENTRY PORCH	223 s.f.	
/entilation Required:	223 s.f. x 144 / 300 =	107.04 s.i. Req'd
Provide between 40% & 50% of the total re	equired ventilation no more than 3 ft below th	e ridge or
he highest point of the space. Remainder	to be installed at eave vents.	
Jpper Roof Ventilation:		
AF50 Roof Jack (10" x 7") =		50.00 s.i. each.
Jpper Ventilation MINIMUM =	107.04 s.i. x 0.4 / s.i. of each vent =	1 vent
Jpper Ventilation MAXIMUM =	107.04 s.i. x 0.5 / s.i. of each vent =	1 vent
Provide:	1 -10"x7" roof jacks. Ventilation =	50.00 s.i.
/entilation area remainder for eave vents =	57.04 s.i.	(Req'd vent-Upper vent.)
Eave Ventilation:		
Birdblocking: (3)2.25" dia holes per bay =	5.96 s.i. per l.f 25% reduction =	4.47 s.i. per l.f.
Eave Ventilation Required =	57.04 s.i. / 4.47 s.i. per l.f. =	12.76 l.f.
Provide Minimum :	13 l.f. birdblocking. Ventilation =	58.11 s.i.
Minimum Ventilation Provided =	108.11 s.i. IS GREATER THAN:	107.04 s.i. Req'd

823.68 s.i. Req'd

73.5 s.i.

11.21 s.i.

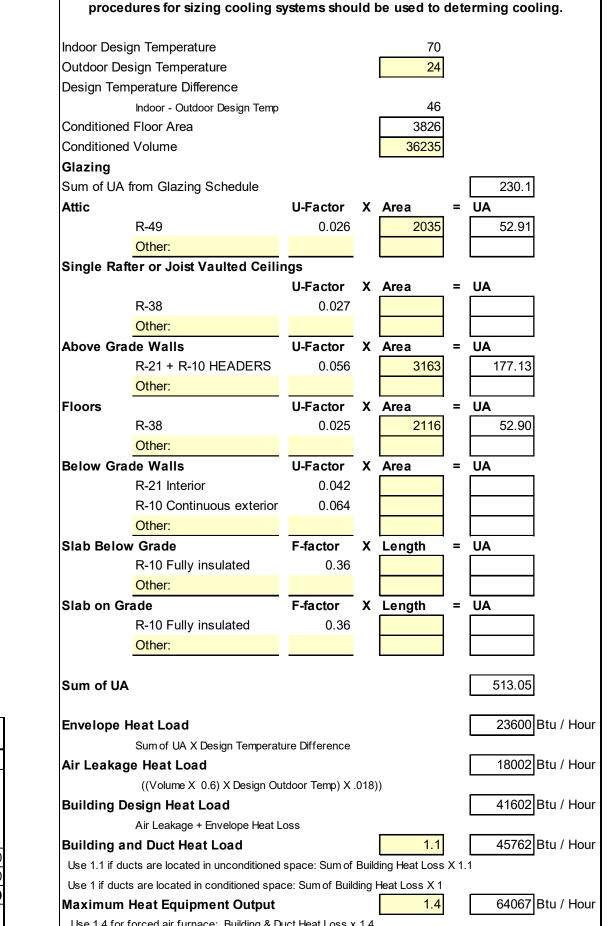
882 s.i.

823.68 s.i. Reg'd

ROOF VENTILATION	N	
Standard Truss / Scissor Truss Roof Fra	ming Assembly:	
Roof Area: GARAGE ROOF	350 s.f.	
Ventilation Required:	350 s.f. x 144 / 300 =	168 s.i. Req
Provide between 40% & 50% of the total re	quired ventilation no more than 3 ft below th	e ridge or
the highest point of the space. Remainder	to be installed at eave vents.	
Upper Roof Ventilation:		
AF50 Roof Jack (10" x 7") =		50.00 s.i. eac
Upper Ventilation MINIMUM =	168 s.i. x 0.4 / s.i. of each vent =	2 vents
Upper Ventilation MAXIMUM =	168 s.i. x 0.5 / s.i. of each vent =	2 vents
Provide:	2 -10"x7" roof jacks. Ventilation =	100.00 s.i.
Ventilation area remainder for eave vents =	68.00 s.i.	(Req'd ventUpper v
Eave Ventilation:		
Birdblocking: (3)2.25" dia holes per bay =	5.96 s.i. per l.f 25% reduction =	4.47 s.i. per
Eave Ventilation Required =	68.00 s.i. / 4.47 s.i. per l.f. =	15.21 l.f.
Provide Minimum :	16 l.f. birdblocking. Ventilation =	71.52 s.i.
Minimum Ventilation Provided =	171.52 s.i. IS GREATER THAN:	168 s.i. Red

Standard Truss / Scissor Truss Roof Fra	ming Assembly:	
Roof Area: REAR ROOF	256 s.f.	
Ventilation Required:	256 s.f. x 144 / 300 =	122.88 s.i. Req'd
Provide between 40% & 50% of the total re	equired ventilation no more than 3 ft below th	ne ridge or
the highest point of the space. Remainder	to be installed at eave vents.	
Upper Roof Ventilation:		
AF50 Roof Jack (10" x 7") =		50.00 s.i. each.
Upper Ventilation MINIMUM =	122.88 s.i. x 0.4 / s.i. of each vent =	1 vent
Upper Ventilation MAXIMUM =	122.88 s.i. x 0.5 / s.i. of each vent =	1 vent
Provide:	1 -10"x7" roof jacks. Ventilation =	50.00 s.i.
Ventilation area remainder for eave vents =	72.88 s.i.	(Req'd ventUpper vent.
Eave Ventilation:		
Birdblocking: (3)2.25" dia holes per bay =	5.96 s.i. per l.f 25% reduction =	4.47 s.i. per l.f.
Eave Ventilation Required =	72.88 s.i. / 4.47 s.i. per l.f. =	16.30 I.f.
Provide Minimum :	17 l.f. birdblocking. Ventilation =	75.99 s.i.
Minimum Ventilation Provided =	125.99 s.i. IS GREATER THAN:	122.88 s.i. Reg'd

16.00



SIMPLE HEATING SYSTEM SIZE

This heating system sizing is based on the Prescriptive Requirements

of the 2015 Washington State Energy Code. This is for heating only. ACCA

			WINDOW,	SKYL	IGHT & DO	OR SO	CHEDU	ILE				
	(CONDITIONE	D FLOOR AREA:	3826		SUN	OF UA F	OR H	EATING	G SYSTE	M SIZING:	230.
SUM (OF ALL GLA	ZING AREAS	S FROM BELOW:	789	(DOES NOT INC	LUDE EXE	MPT DOOF	₹ & V	VINDO\	N)		
	GLAZI	ING TO FLO	OR AREA RATIO:	20.6%								
EXEMPT	DOOR A	ND WIND	OW									
ROOM						U-VAL		QTY	W	Н	AREA	UA
	EXEMPT S	SWINGING E	OOR (24 S.F. MA	X)							0.00	0.0
	EXEMPT V	WINDOW (15	S.F. MAX.)								0.00	0.0
				SUM C	F AREA AND UA	FOR HEA	TING SYS	TEM	SIZE (DNLY:	0.0	0.
EXTERIO	OR DOORS	S (OPAQU	JE)									
ROOM	TYPE	REF				U-VAL		QTY	W	Н	AREA	UA
GARAGE	DOOR	WSEC				0.28		1	2.67	6.67	17.81	4.9
FOYER	DOOR	WSEC				0.28		1	3.00	8.00	24.00	6.7
	DOOR	WSEC									0.00	0.0
							SUM O	F AR	EA AN	D UA:	41.8	11.
						$\Lambda D = \Lambda$	WEIGHTE	וו חב	- 11/1/	DEA.		Λ.

								30W	<i>'</i>		VD UA.	41.0	11.7				J J J J J J J J J J
							ARE	A WEIGHT	ED U	' = UA	'AREA:		0.28	This project will use the re	equirements of the	Prescriptive Pa	ath below and
VERTIC <i>A</i>	AL GLAZIN	G												incorporate the minimum	values listed. In a	ddition, based o	on the size of the
(ALL W	INDOWS A	RE DOUB	LE GLA	AZED. U-FACT	TORS A						CE WII	TH NFRC 10	00)	structure, the appropriate	number of addition	al credits are	checked.
ROOM	TYPE	REF	MODEL	FRAME GAS	LO-E	E PKG	U-VAL	SPCRS	QTY	W	H	AREA	UA	, 11	All Climat		
MAIN FLOO	OR .				_										R-Value ^a	U-Factor ^a	With use of Cr
DINING	S.HUNG	MILGARD	8220	VINYL AIR	YES	SUNC/i89	0.27	FOAM	2	3.00		36.00	9.72	Fenestration U-Factor ^b	n/a	0.30	0.28 U-Factor
FOYER	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	4	1.50		30.00	8.10	Skylight U-Factor	n/a	0.50	0.20 0 1 40.01
FOYER	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	3.00	5.00	15.00	4.05	Glazed Fenestration SHGC ^{b,e}	n/a	 n/a	
GREAT RM	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	3	3.00	6.00	54.00	14.58		49 ^j	0.026	
GREAT RM	S.G.D.	MILGARD	8621	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	8.00	8.00	64.00	17.28	Ceiling			
NOOK	FR DOOR	MILGARD	9642	WOOD AIR	YES	SUNC/i89	0.27	EDGEMA)	1	3.00	8.00	24.00	6.48	Wood Frame Wall ^{g,m,n}	21 int	0.056	
NOOK	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	3.00	6.00	18.00	4.86	Mass Wall R-Value	21/21 ^h	0.056	
NOOK	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	8.00	6.00	48.00	12.96	Floor	30 ^g	0.029	38 R-Value (0.0
DEN	SLIDER	MILGARD	8120	VINYL ARGON	YES	SUNC/i89	0.27	EDGE	1	6.00	5.00	30.00	8.10	Below Grade Wall ^{c,k}	10/15/21 int + TB	0.042	R-10 perimeter
DEN	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	6.00	5.00	30.00	8.10	Slab ^d R-Value & Depth	10, 2 ft	n/a	R-10 perimeter
BATH 4	S.HUNG	MILGARD	8220	VINYL AIR	YES	SUNC/i89	0.27	FOAM	1	2.00	4.00	8.00	2.16	For single rafter- or joist-vaulte	ed ceilings, the insulati	on may be reduce	ed to R-38.
GUEST BR	FR DOOR	MILGARD	9642	WOOD AIR	YES	SUNC/i89	0.27	EDGEMA	1	2.67	8.00	21.36	5.77	Table R402.1.1 footnotes inclu	uded on Sheet A1.		
GUEST BR	SLIDER	MILGARD	8120	VINYL ARGON	YES	SUNC/i89	0.27	EDGE	1	6.00	5.00	30.00	8.10	Each dwelling unit in a reside	ntial building shall co	mply with sufficie	ent options from Ta
GUEST BR	S.HUNG	MILGARD	8220	VINYL AIR	YES	SUNC/i89	0.27	FOAM	2	3.00	5.00	30.00	8.10	as to achieve the following m	inimum number of cre	edits:	
UPPER FLO	OOR													☐1. Small Dwelling Unit: 1.5	noints		
BEDRM 2	S.HUNG	MILGARD	8220	VINYL AIR	YES	SUNC/i89	0.27	FOAM	2	3.00	5.00	30.00	8.10	_	s than 1500 square fe	et in conditioned f	loor area with less
BEDRM 2	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	3.00	2.00	6.00	1.62	_	estration area. Addition		
LAUNDRY	S.HUNG	MILGARD	8220	VINYL AIR	YES	SUNC/i89	0.27	FOAM	1	2.00	4.00	8.00	2.16		out less than 1500 squ		
STAIR	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	8	3.00	3.00	72.00	19.44	☑2. Medium Dwelling Unit: 3	5 nointe		
MSTR BR	CASE	MILGARD	8520	VINYL AIR	YES	SUNC/i89	0.27	EDGE	3	3.00	4.00	36.00	9.72		hat are not included in	#1 or #2 Eventi	ion: Dwolling units
MSTR BR	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	8.00	4.00	32.00	8.64	1	shall require 2.5 credits	•	on. Dweiling units
M BATH	D.SLIDER	MILGARD	8125	VINYL ARGON	YES	SUNC/i89	0.27	EDGE	1	7.00	4.00	28.00	7.56	·	•	· .	
BONUS	SLIDER	MILGARD	8120	VINYL ARGON	YES	SUNC/i89	0.27	EDGE	2	6.00	4.00	48.00	12.96	3. Large Dwelling Unit: 4.5	-		_
BONUS	PICTURE	MILGARD	8320	VINYL AIR	YES	SUNC/i89	0.27	EDGE	2	3.00	2.00	12.00	3.24	_	eeding 5000 square fe		floor area.
BEDRM 4	SLIDER	MILGARD	8120	VINYL ARGON	YES	SUNC/i89	0.27	EDGE	1	6.00	4.00	24.00	6.48	4. Additions less than 500	square feet: .5 credit	<u> </u>	
BATH 3	CASE	MILGARD	8520	VINYL AIR	YES	SUNC/i89	0.27	EDGE	1	2.00		4.00	1.08	ENERCY	CDEDIT OD	TION DESC	PIDTIONS
BEDRM 3	S.HUNG	MILGARD	8220	VINYL AIR	YES	SUNC/i89	0.27	FOAM	2	3.00		27.00	7.29	ENERGY	CREDIT OP	ION DESC	KIP I IUNS
<u> </u>								SUM C)F AF	REA A	ND UA:	765.36	206.65	Option Description			Credit(s)
							ARE	A WEIGHT	ED U	I = UA	'AREA:		0.27	1a Efficient Building	Envelope 1a		0.5
OVERHE	AD GLAZI	NG										_		- Zinolon Banang	o.opc 14		

GUEST BR	FR DOOR	MILGARD	9642	WOOD	AIR	YES	SUNC/i89	0.27	EDGEMAX	1	2.67	8.00	21.3	66 5.77
GUEST BR	SLIDER	MILGARD	8120	VINYL	ARGON	YES	SUNC/i89	0.27	EDGE	1	6.00	5.00	30.0	0 8.10
GUEST BR	S.HUNG	MILGARD	8220	VINYL	AIR	YES	SUNC/i89	0.27	FOAM	2	3.00	5.00	30.0	0 8.10
UPPER FLC	OR													
BEDRM 2	S.HUNG	MILGARD	8220	VINYL	AIR	YES	SUNC/i89	0.27	FOAM	2	3.00	5.00	30.0	0 8.10
BEDRM 2	PICTURE	MILGARD	8320	VINYL	AIR	YES	SUNC/i89	0.27	EDGE	1	3.00	2.00	6.0	0 1.62
LAUNDRY	S.HUNG	MILGARD	8220	VINYL	AIR	YES	SUNC/i89	0.27	FOAM	1	2.00	4.00	8.0	0 2.16
STAIR	PICTURE	MILGARD	8320	VINYL	AIR	YES	SUNC/i89	0.27	EDGE	8	3.00	3.00	72.0	0 19.44
MSTR BR	CASE	MILGARD	8520	VINYL	AIR	YES	SUNC/i89	0.27	EDGE	3	3.00	4.00	36.0	9.72
MSTR BR	PICTURE	MILGARD	8320	VINYL	AIR	YES	SUNC/i89	0.27	EDGE	1	8.00	4.00	32.0	0 8.64
M BATH	D.SLIDER	MILGARD	8125	VINYL	ARGON	YES	SUNC/i89	0.27	EDGE	1	7.00	4.00	28.0	0 7.56
BONUS	SLIDER	MILGARD	8120	VINYL	ARGON	YES	SUNC/i89	0.27	EDGE	2	6.00	4.00	48.0	0 12.96
BONUS	PICTURE	MILGARD	8320	VINYL	AIR	YES	SUNC/i89	0.27	EDGE	2	3.00	2.00	12.0	0 3.24
BEDRM 4	SLIDER	MILGARD	8120	VINYL	ARGON	YES	SUNC/i89	0.27	EDGE	1	6.00	4.00	24.0	0 6.48
BATH 3	CASE	MILGARD	8520	VINYL	AIR	YES	SUNC/i89	0.27	EDGE	1	2.00	2.00	4.0	0 1.08
BEDRM 3	S.HUNG	MILGARD	8220	VINYL	AIR	YES	SUNC/i89	0.27	FOAM	2	3.00	4.50	27.0	0 7.29
									SUM O	F AR	REA AN	D UA:	765.3	6 206.65
								ARE	A WEIGHTE	ED U	= UA/A	REA:		0.27
OVERHE	AD GLAZI	NG												
ROOM	TYPE	REF	MODEL	.FRAME	GAS	LO-E	LAYERS	U-VAL		QTY	W	Н	AREA	. UA
STAIR	SKYLIGHT	MILGARD	790	ALUM	ARGON	YES	DBL	0.49		1	4.00	4.00	16.0	0 7.84
М ВАТН	SKYLIGHT	MILGARD	790	ALUM	ARGON	YES	DBL	0.49		1	4.00	2.00	8.0	0 3.92
	1					1	•		SUM O	F AR	EA AN	D UA:	24.0	0 11.76
								ARE	A WEIGHTE	ED U	= UA/A	REA:		0.49
\/====i		<u> </u>												
	L GLAZIN													
ROOM	TYPE	REF	MODEL	FRAME	GAS	LO-E	LAYERS	U-VAL	SPCRS	QTY	W	_Н	AREA	
													0.0	
													0.0	
						SUM	OF VERTICAL	L GLAZI	NG IN UNH	EATE	ED SPA	CES:	0.0	0
							(no	t include	ed in sum of	all g	lazing a	bove)		
OVERHE	AD GLAZII	NG IN UN	HEATE	ED SPA	ACES									
ROOM	TYPE	REF	MODEL	.FRAME	GAS	LO-E	LAYERS	U-VAL	_	QTY	W	Н_	AREA	
PATIO	SKYLIGHT									2	2.00	4.00	16.0	0
	SKYLIGHT												0.0	0

SUM OF OVERHEAD GLAZING IN UNHEATED SPACES:

(not included in sum of all glazing above)

PRESCRIPTIVE ENERGY CODE COMPLIANCE
Use 1.25 for heat pump: Building & Duct Heat Loss x 1.25
Ose 1.4 for forced air furnace. Building & Duct Heat Loss X 1.4

incorporate the minimum values listed. In addition, based on the size of the								
structure, the appropriate number of additional credits are checked.								
All Climate Zones								
R-Value ^a U-Factor ^a With use of Credit 1a								
Fenestration U-Factor ^b	n/a	0.30	0.28 U-Factor					
Skylight U-Factor	n/a	0.50						
Glazed Fenestration SHGC ^{b,e}	n/a	n/a						
Ceiling	49 ^j	0.026						
Wood Frame Wall ^{g,m,n}	21 int	0.056						
Mass Wall R-Value ⁱ	21/21 ^h	0.056						
Floor	30 ^g	0.029	38 R-Value (0.025)					
Below Grade Wall ^{c,k}	10/15/21 int + TB	0.042	R-10 perimeter & entire slab					
Slab ^d R-Value & Depth	10, 2 ft	n/a	R-10 perimeter & entire slab					

For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38. Table R402.1.1 footnotes included on Sheet A1. Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 sc

square feet of fenestration area. Additions to existing building that are 500 square feet of heated floor area but less than 1500 square feet.

☑2. Medium Dwelling Unit: 3.5 points All dwelling units that are not included in #1 or #3. Exception: Dwelling units serving R-2 occupancies shall require 2.5 credits.

Dwelling units less than 1500 square feet in conditioned floor area with less than 300

ENERGY	CREDIT	OPTION	DESCRIP	TION
	· · · · · ·	•		•

Option	Description	Credit(s)
1a	Efficient Building Envelope 1a	0.5
1b	Efficient Building Envelope 1b	1.0
1c	Efficient Building Envelope 1c	2.0
1d	Efficient Building Envelope 1d	0.5
2a	Air Leakage Control and Efficient Ventilation 2a	0.5
2b	Air Leakage Control and Efficient Ventilation 2b	1.0
2c	Air Leakage Control and Efficient Ventilation 2c	1.5
3a	High Efficiency HVAC 3a	1.0
3b	High Efficiency HVAC 3b	1.0
3с	High Efficiency HVAC 3c	1.5
3d	High Efficiency HVAC 3d	1.0
4	High Efficiency HVAC Distribution System	1.0
5a	Efficient Water Heating 5a	0.5
5b	Efficient Water Heating 5b	1.0
5c	Efficient Water Heating 5c	1.5
5d	Efficient Water Heating 5d	0.5
6	Renewable Electric Energy	*1200 kwh

ALARM SCHEDULE							
2015 I.R.C. SECTIONS R314 & R315							
SYMB0L	DESCRIPTION	REQUIREMENTS					
(SA)	SMOKE ALARM	*IIO V INTERCONNECTED W/ BATTERY BACKUP *INSTALLED ON EACH FLOOR, IN EACH SLEEPING AREA, AND OUTSIDE EACH SEPARATE SLEEPING AREA. INSTALLED NOT LESS THAN 3 FEET FROM THE DOOR OF A BATH WHICH CONTAINS A TUB OR SHOWER UNLESS THIS PREVENTS PLACEMENT IN A REQUIRED LOCATION. *LISTED IN ACCORDANCE WITH UL-217 AND TO COMPLY WITH NFPA 72					
SACM	COMBINATION SMOKE ALARM & CARBON MONOXIDE ALARM	*INSTALLED ON EACH FLOOR AND OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, AND IN A BEDROOM THAT CONTAINS A GAS FIREPLACE IN THE BEDROOM OR ADJACENT BATHROOM. *SMOKE ALARM REQUIREMENTS ABOVE *COMBINATION SMOKE & CARBON MONOXIDE ALARMS LISTED IN ACCORDANCE WITH UL 217 & UL 2034.					

2015 IRC S	ECTION M1507					
SYMBOL	LOCATION	MINIMUM FAN REQUIREMENTS				
A	Bath, Powder, Laundry	Min. 50 cfm at 0.25" WG (IRC TABLE M1507.4)				
В	Kitchen	Min. 100 cfm at 0.25" WG (IRC TABLE M1507.4) (Range hood or down draft exhaust fan rated at min.100 cfm at 0.10" WG may be used for exhaust fan requirement.)				
() c	Whole House Fan	Sized per "Intermittent Ventilation Flow Rate" below. *Whole house fans located 4 ft. or less from interior grille to have a sone rating of 1.0 or less measured at 0.1" WG				
VENTILA	RMITTENT ATION FLOW RATE	Min. cfm = 120 at 0.25" WG (IRC TABLE M1507.3.3(1)) (based on 3,826 s.f. floor area & 5 bedrooms) (daily fractional operation time = 75 %)				

the 2015 IRC section M1507 must be met.

<u>3A-</u> HEAT PUMP W/ GAS FURNACE BACKUP (2) RHEEM RPI760AJV HEAT PUMP (9.50 HSPF) W/ (2) RHEEM R96VAII52524 MSA GAS FURNACE (96% AFUE) TOTAL MAX FURNACE OUTPUT

 $=(2)\times40,600 = 81,200 BTUH (BACKUP)$

AIR LEAKAGE

AMERICAN-HPSE 10280H045DV-80 GAL HYBRID GAS/ELECTRIC HEAT PUMP WATER HEATER, EF=2.72

FOUNDATION VENTILATION

1716 s.f.

12 14" x 7" Vents, Area =

12 14" x 7"

mponents of the building thermal envelope as listed in TABLE R402.4.1.1 shall be installed per manufacturer's

OF THE BUILDING SHALL BE PERMITTED TO HAVE NO VENTS.

1716 s.f. / 300 =

14" x 7" Foundation Vents

823.68 s.i. / Vent Area =

882.00 s.i. is Greater than

* FOUNDATION VENTS SHALL NOT INTERFERE WITH DIRECT LOAD PATH OF COLUMNS

LOCATE ONE VENT WITHIN 3 FEET OF EACH CORNER OF THE BUILDING, EXCEPT ONE SIDE

* INSTALL 6 MIL BLACK POLYETHYLENE VAPOR RETARDER GROUND COVER

Building Volume = 35668.8 cubic feet

98 s.i. - 25% reduct.,1/4"mesh =

Foundation Vents

ACTUAL Blower test result

Crawlspace Area:

Vent Area =

Provide:

specifications to limit air leakage rate to not exceed 5 air changes per hour (ACH)

AIR LEAKAGE CALCULATION (maximum blower test CFM)

maximum ACH CFM_{50-calc} = BLDG VOL (ft³) X 5 ACH / 60 min

Vents Required =

Ventilation Provided =

Ventilation Required:

VAPOR RETARDER								
FLOOR	4 MIL POLY FACE STAPLED BACKED BATTS X PLYWOOD W/ EXT. GLUE							
MALL	4 MIL POLY FACE STAPLED BACKED BATTS X PVA PRIMER							
RIM JOIST	4 MIL POLY X FACE STAPLED BACKED BATTS PVA PRIMER							
CEILING	4 MIL POLY FACE STAPLED BACKED BATTS X PVA PRIMER							

	WHOLE HOUSE VENTILATION
	OPTION 1. INTERMITTENT WHOLE HOUSE VENTILATION USING EXHAUST FANS (IRC M1507.3.4) 120 MIN. CFM @ 0.25 WG EXHAUST FANS FLOW RATING PER IRC TABLE M1507.3.3(1) OUTDOOR AIR DISTRIBUTED TO EACH HABITABLE ROOM BY INDIVIDUAL OUTDOOR AIR INLETS.
X	OPTION 2. INTERMITTENT WHOLE HOUSE VENTILATION INTEGRATED WITH A FORCED-AIR SYSTEM (IRC M1507.3.5) PROVIDE OUTDOOR AIR AT 120 CFM PER IRC SECTION M1507.3.3 MOTORIZED DAMPER CONNECTED TO THE AUTOMATIC VENTILATION CONTROL
	OPTION 3. INTERMITTENT WHOLE HOUSE VENTILATION USING A SUPPLY FAN (IRC M1507.3.6) PROVIDE OUTDOOR AIR AT 120 CFM @ 0.40 WG PER IRC TABLE M1507.3.3(1) INCH SMOOTH OR INCH FLEXIBLE OUTDOOR AIR INLET DUCT PER IRC TABLE M1507.3.6.2 BACK-DRAFT DAMPER SELECTION: CALIBRATED MANUAL VOLUME DAMPER MANUAL VOLUME DAMPER AUTOMATIC FLOW-REGULATING DEVICE
	OPTION 4. INTERMITTENT WHOLE HOUSE VENTILATION USING A HEAT RECOVERY VENTILATION SYSTEM (IRC M1507.3.7)

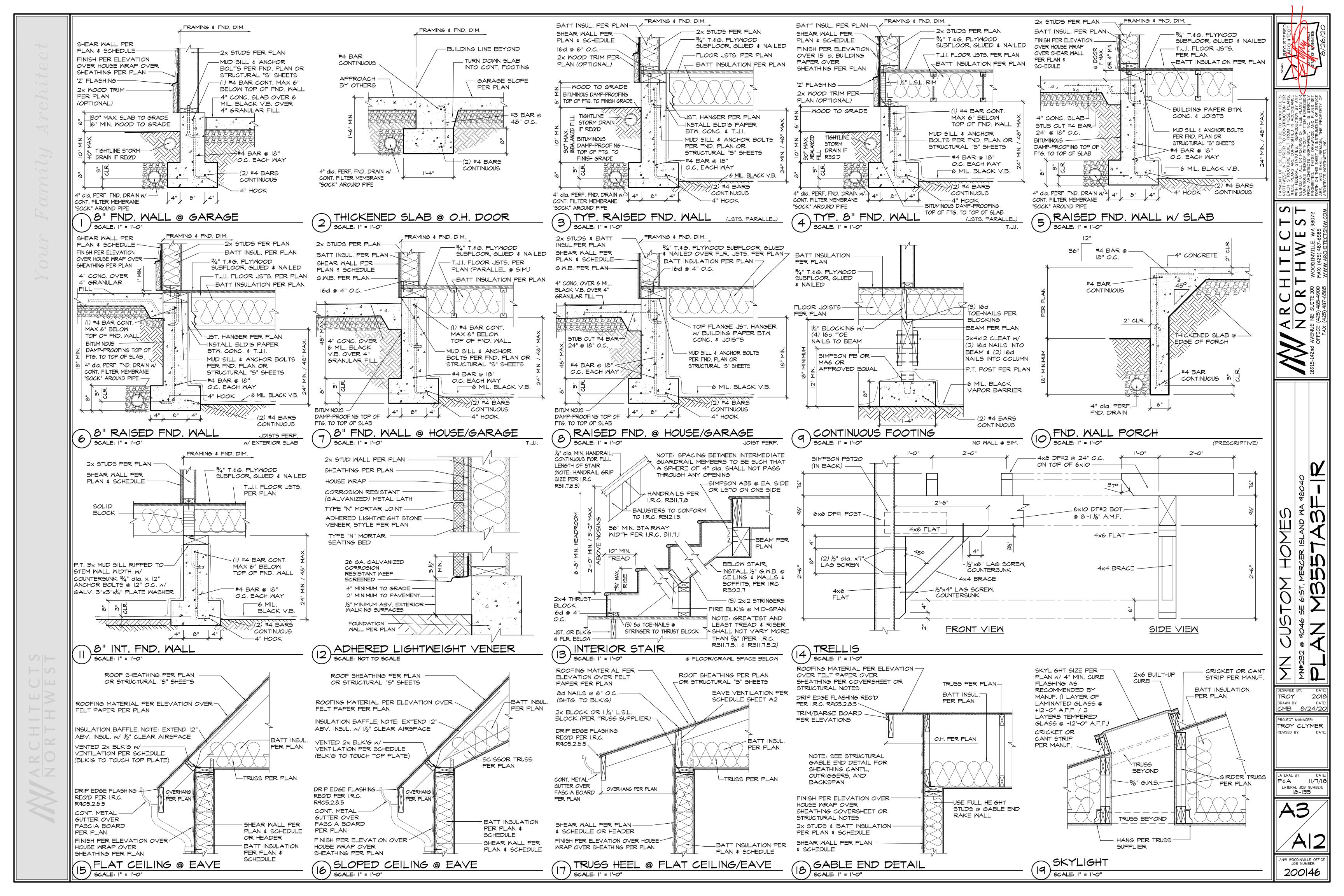
~ 2015 W.S.E.C. SCHEDULES SCALE: NOT TO SCALE

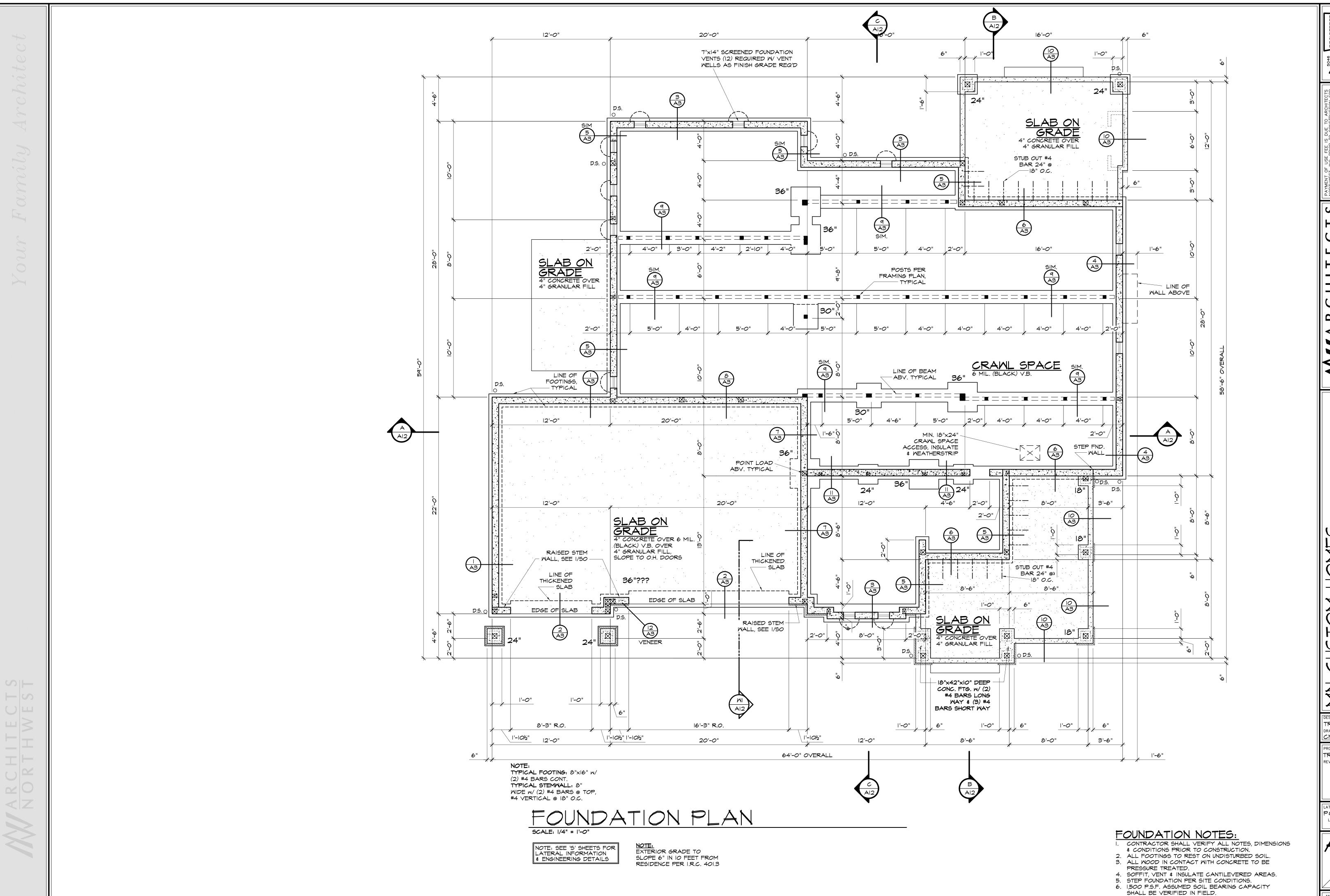
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TROY 2018 DRAWN BY: CMB 8/24/20 ROJECT MANAGER: TROY CLYMER REVISED BY:

LATERAL JOB NUMBER: 18-155

ANW WOODINVILLE OFFICE JOB NUMBER: 200146





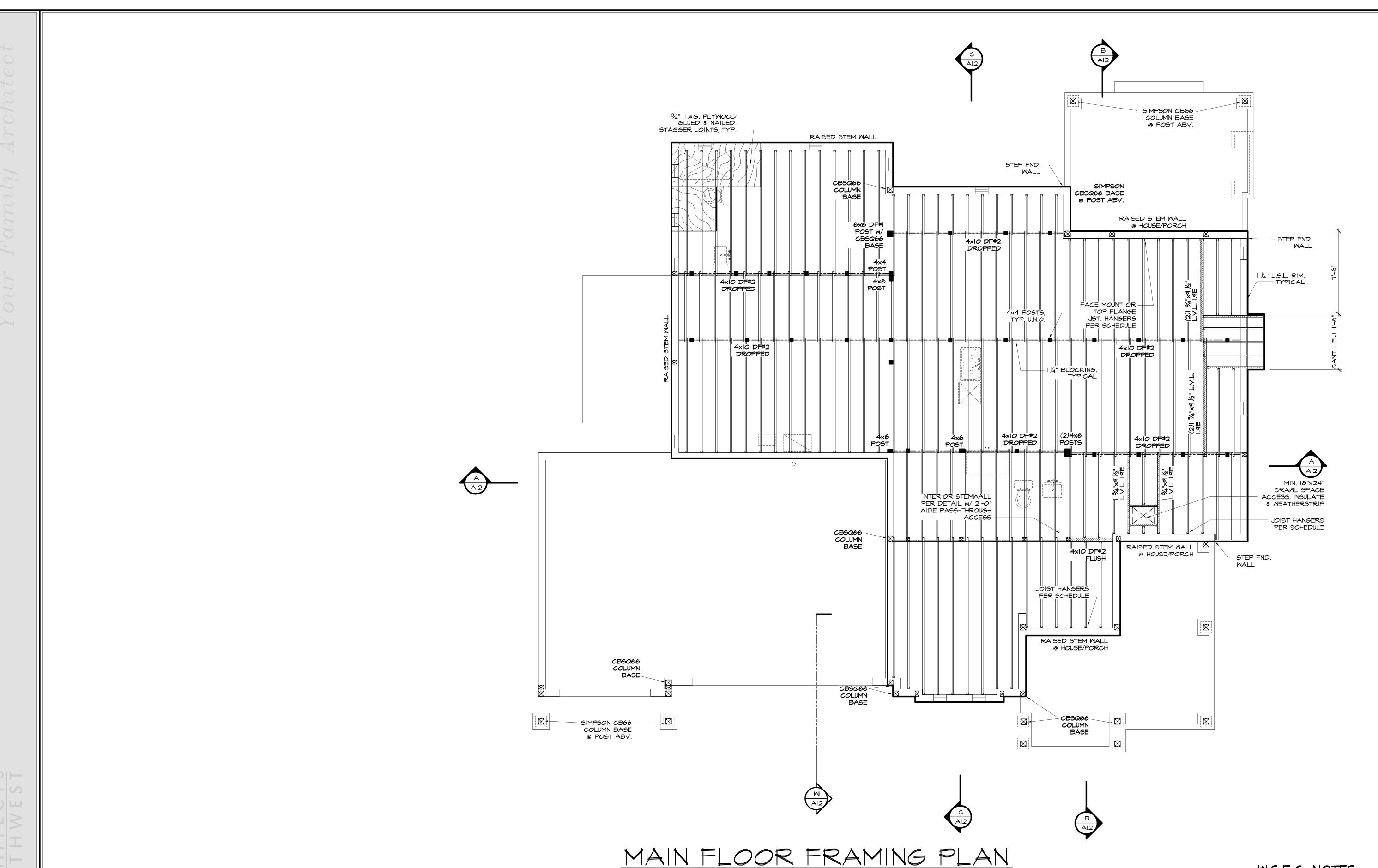
DESIGNED BY: TROY 2018 DRAWN BY:

CMB 8/24/20 PROJECT MANAGER: TROY CLYMER REVISED BY:

P\$A 11/7/18 LATERAL JOB NUMBER: 18-155

ANW WOODINVILLE OFFICE JOB NUMBER: 200146

7. SEE SHEET AI FOR ADDITIONAL NOTES.



HANGER SCHEDULE

T.J.I. SERIES IIO HANGERS:

9 ½" - FACE MOUNT 9岁" - TOP FLANGE 9½" - SKEWED 45°

- SIMPSON IUSI.81/9.5 - SIMPSON ITT9.5 - SIMPSON SUR/LI.81/9 || %" - FACE MOUNT || %" - TOP FLANGE - SIMPSON IUSI.81/11.88 - SIMPSON ITTII.88 - SIMPSON SUR/LI.81/11

11 %" - SKEWED 45°

1 ¾"×9 ½" 1 3/4"×9 /2"

- TOP FLANGE -1¾"×9½" - SKEWED 45°- SIMPSON SUR/LI.81/9 1 34"×11 76" - FACE MOUNT - SIMPSON HUII - TOP FLANGE - SIMPSON ITSI.81/11.88 1 ¾"×11 %" - SKEWED 45°- SIMPSON SUR/LI.81/11 Ι¾"×ΙΙ ʹ⁄⁄6"

- FACE MOUNT - SIMPSON HU9 SIMPSON | TS|.8|/9.5

NOTE: SEE 'S' SHEETS FOR LATERAL INFORMATION \$ ENGINEERING DETAILS

DESIGNATED ON FRAMING PLANS.

BEAM SCHEDULE PLAN VIEW DESCRIPTION DROPPED BEAM DESIGNATED ON FLOOR PLANS. _ _ _ _ _ _ DROPPED BEAM DESIGNATED ON FRAMING PLANS. FLUSH AND TOP FLUSH BEAM

W.S.E.C. NOTES:

FLOOR INSULATION: (PER OPTION Ia) -INSULATION @ 9 ½" T.J.I. TO BE R-38c. -INSULATION @ 11 ½" T.J.I. TO BE R-38.

FLOOR FRAMING NOTES:

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.

2. ALL FLOOR JOISTS TO BE II 7/8" T.J.I. SERIES 210 @ 16" ON CENTER UNLESS NOTED OTHERWISE (U.N.O.)

3. ALL BEAMS & HEADERS TO BE 4x10 DF#2 U.N.O. PROVIDE SOLID BLOCKING OVER SUPPORTS.

PROVIDE FIRE BLOCKING @ ALL PLUMBING PENETRATIONS. 6. BEARING WALLS ARE SHADED. PLUMBING AND MECHANICAL FIXTURES ARE DASHED.

IO. SEE SHEET AI FOR ADDITIONAL NOTES.

8. INDICATES POINT LOAD SUPPORTED BY (2) STUDS, U.N.O. PROVIDE 4x6 POSTS AT BEAM SPLICES. 9. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.

ANW WOODINVILLE OFFICE JOB NUMBER: 200146

DESIGNED BY: TROY

DRAWN BY:

CMB 8/24/20

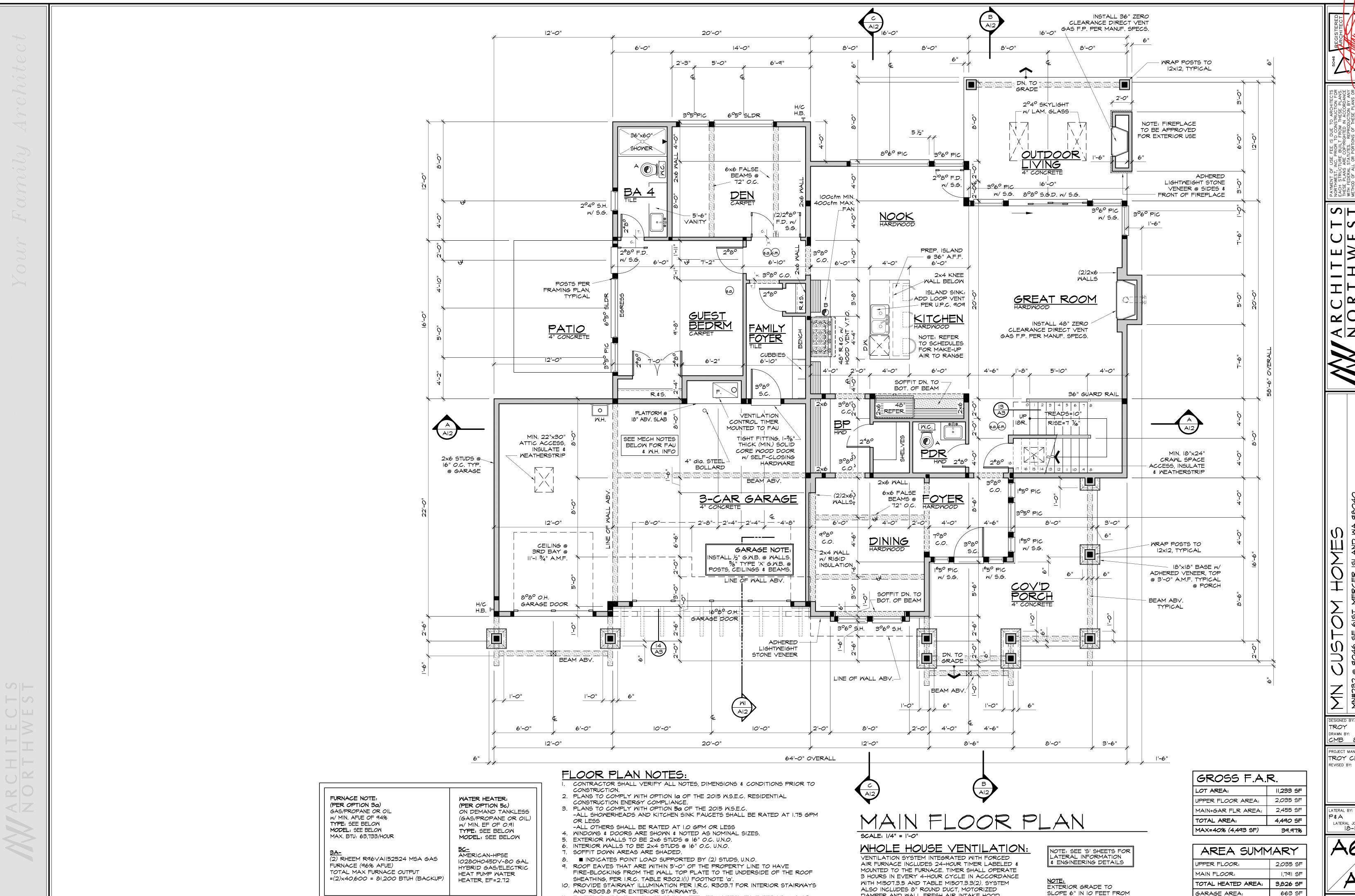
P&A 11/7/18

LATERAL JOB NUMBER: 18-155

PROJECT MANAGER: TROY CLYMER REVISED BY:

2018

PAYMENT OF USE FEE IS DUE TO ARCHITECT NORTHWEST, INC. PRIOR TO CONSTRUCTION FO EACH STRUCTURE BUILT FROM THESE PLANS THESE PLANS THESE PLANS ARE COPYRIGHTED IN ACCORDANC WITH FEDERAL STATUTES. REPRODUCTION BY AN METHOD OF ALL OR PORTIONS OF THESE PLANS O VARIATIONS THEREOF WITHOUT WRITTEN PERMISSIO FROM ARCHITECTS NORTHWEST, INC. IS STRUCT PROHIBITED. THESE DRAWINGS AND PLANS SE FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICARE, AND SHALL REMAIN, THE PROPERTY O ARCHITECTS NORTHWEST. INC.



. EXTERIOR GRADE TO SLOPE 6" IN IO FEET FROM RESIDENCE PER I.R.C. 401.3.

12. SEE SHEET AI FOR ADDITIONAL NOTES.

13. SEE SHEET A2 FOR VENTILATION AND ALARM SCHEDULES.

NOAZ NOAZ NOAZ NOAZ PRONZ PRON

2018

CMB 8/24/20 PROJECT MANAGER: TROY CLYMER

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LATERAL JOB NUMBER: 18-155

ANW WOODINVILLE OFFICE JOB NUMBER: 200146

663 SF

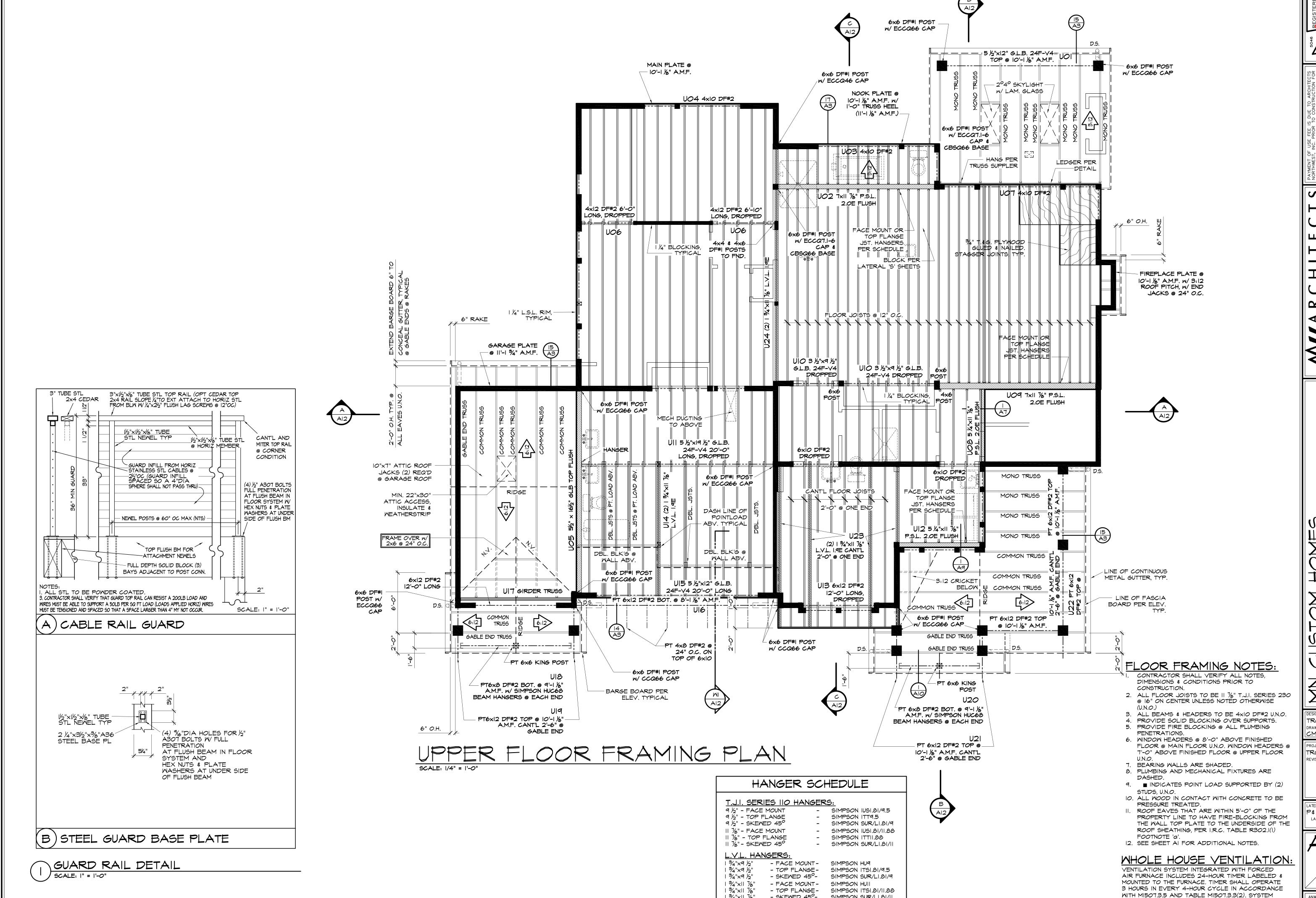
441 SF

GARAGE AREA:

COVERED AREA:

RESIDENCE PER I.R.C. 401.3

DAMPER AND WALL FRESH AIR INTAKE HOOD.



- SKEWED 45°- SIMPSON SUR/LI.81/11

PAYMENT OF UNDSTHWEST, IN EACH STRUCTITIESE PLANS A WITH FEDERAL SWITH FEDERAL SHEND OF ALL FROM ARCHITECTS NORTH ON THIS ARE, AND SHARCHITECTS NORTH ON SHARCHITECTS NORTH ON SHARCHITECTS NORTH ON THIS ARCHITECTS NORTH ON SHARCHITECTS NORTH O

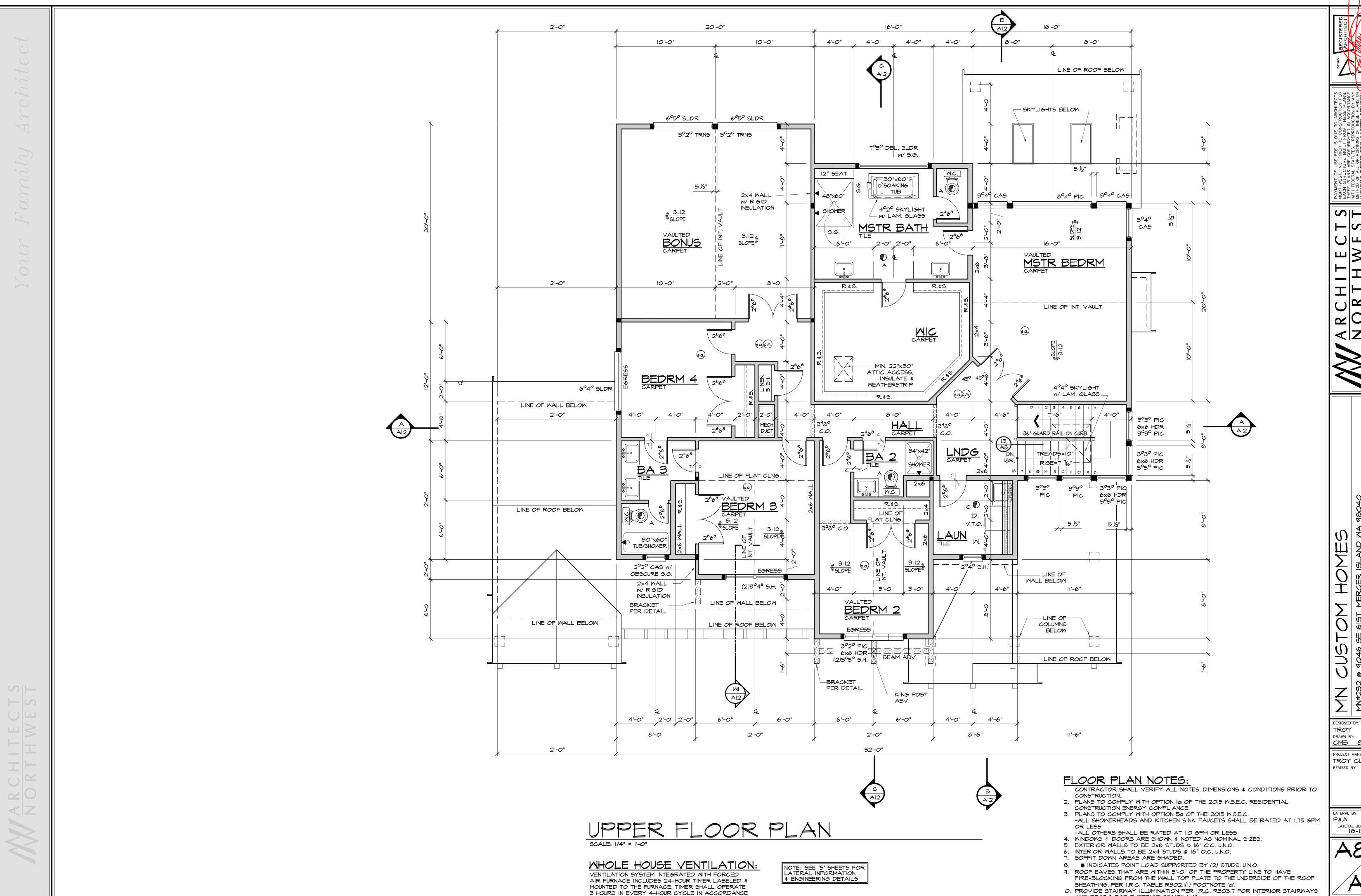
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LATERAL JOB NUMBER: 18-155

ANW WOODINVILLE OFFICE JOB NUMBER: 200146

ALSO INCLUDES 6" ROUND DUCT, MOTORIZED DAMPER AND WALL FRESH AIR INTAKE HOOD



WITH MI507.3.5 AND TABLE MI507.3.3(2). SYSTEM

ALSO INCLUDES 8" ROUND DUCT, MOTORIZED

DAMPER AND WALL FRESH AIR INTAKE HOOD.

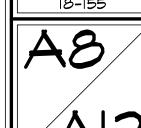
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2018 CMB 8/24/20

PROJECT MANAGER: TROY CLYMER REVISED BY:

LATERAL JOB NUMBER:

18-155



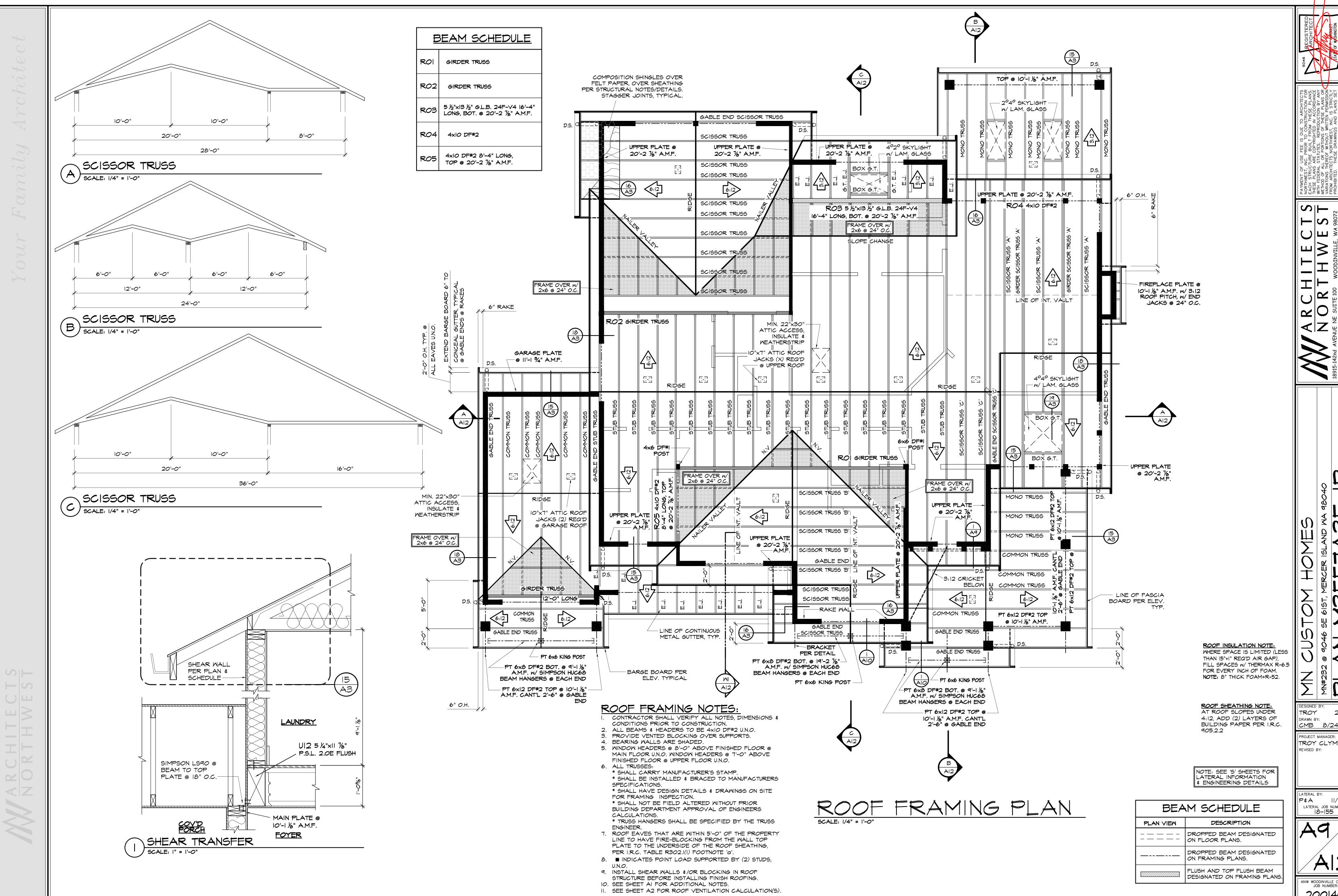
ANW WOODINVILLE OFFICE JOB NUMBER: 200146

AND R303.8 FOR EXTERIOR STAIRWAYS.

13. SEE SHEET A2 FOR VENTILATION AND ALARM SCHEDULES.

12. SEE SHEET AI FOR ADDITIONAL NOTES.

II. EXTERIOR GRADE TO SLOPE 6" IN IO FEET FROM RESIDENCE PER I.R.C. 401.3.



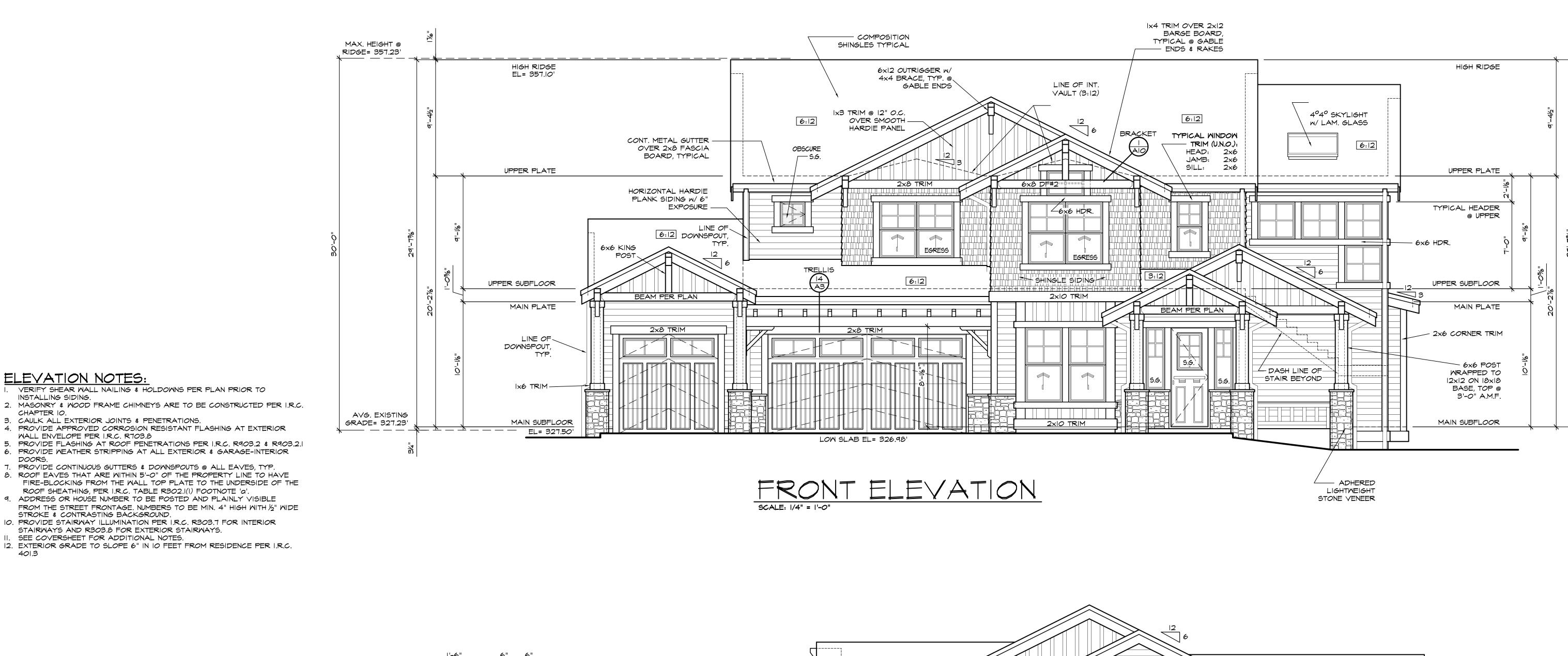
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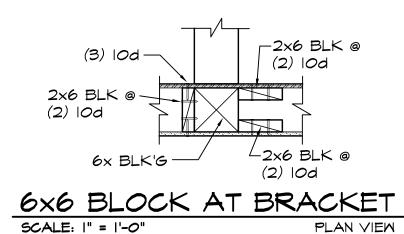
TROY CLYMER

ATERAL BY: DATE: LATERAL JOB NUMBER: 18-155

ANW WOODINVILLE OFFICE JOB NUMBER: 200|46







ELEVATION NOTES:

WALL ENVELOPE PER I.R.C. R703.8

STROKE & CONTRASTING BACKGROUND.

SEE COVERSHEET FOR ADDITIONAL NOTES.

. CAULK ALL EXTERIOR JOINTS & PENETRATIONS.

INSTALLING SIDING.

CHAPTER 10.

VERIFY SHEAR WALL NAILING & HOLDOWNS PER PLAN PRIOR TO

ROOF SHEATHING, PER I.R.C. TABLE R302.I(I) FOOTNOTE 'a'.

STAIRWAYS AND R303.8 FOR EXTERIOR STAIRWAYS.

GABLE END BRACKET/BEAM DETAIL

2'-6"

LATERAL JOB NUMBER: 18-155

DESIGNED BY:

DRAWN BY:

REVISED BY:

CMB 8/24/20

PROJECT MANAGER:

TROY CLYMER

2018 DATE:

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ANW WOODINVILLE OFFICE JOB NUMBER: 200|46

- VERIFY SHEAR WALL NAILING & HOLDOWNS PER PLAN PRIOR TO INSTALLING SIDING.
 MASONRY & WOOD FRAME CHIMNEYS ARE TO BE CONSTRUCTED PER I.R.C.
- CHAPTER 10.

 3. CAULK ALL EXTERIOR JOINTS & PENETRATIONS.

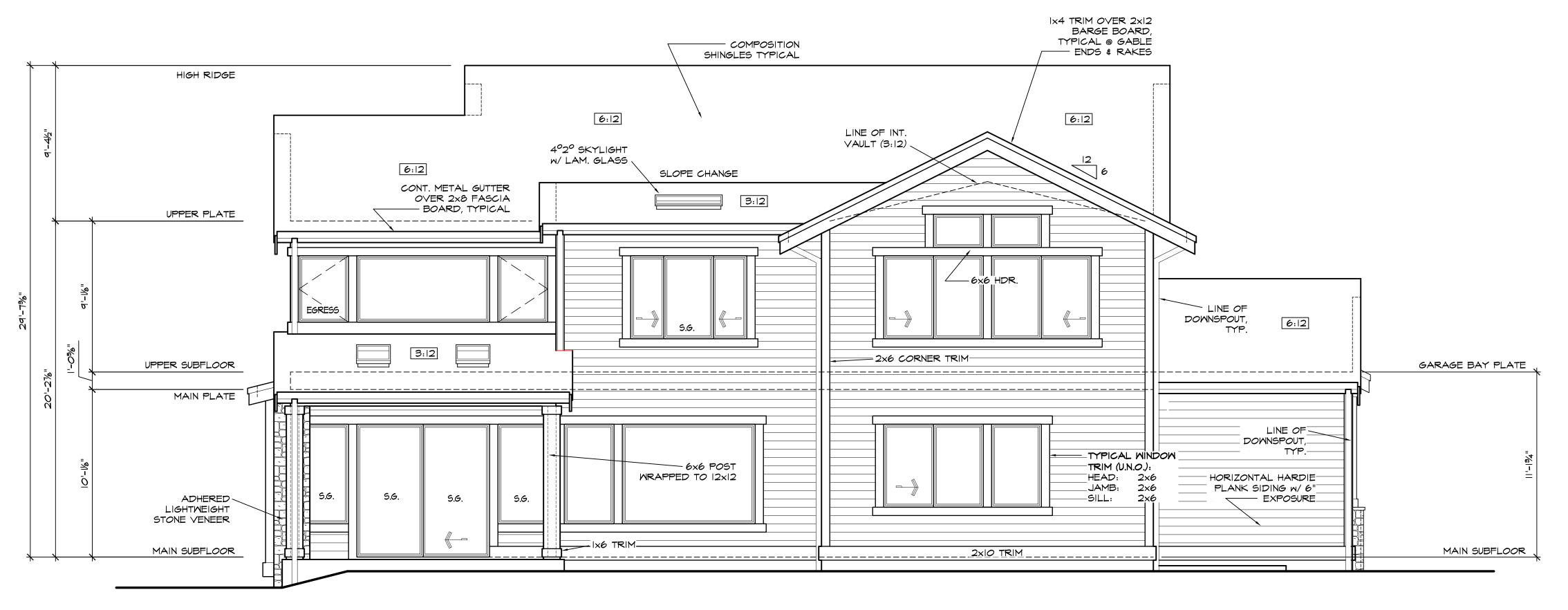
 4. PROVIDE APPROVED CORROSION RESISTANT FLASHING AT EXTERIOR
- WALL ENVELOPE PER I.R.C. R703.8

 5. PROVIDE FLASHING AT ROOF PENETRATIONS PER I.R.C. R903.2 & R903.2.1

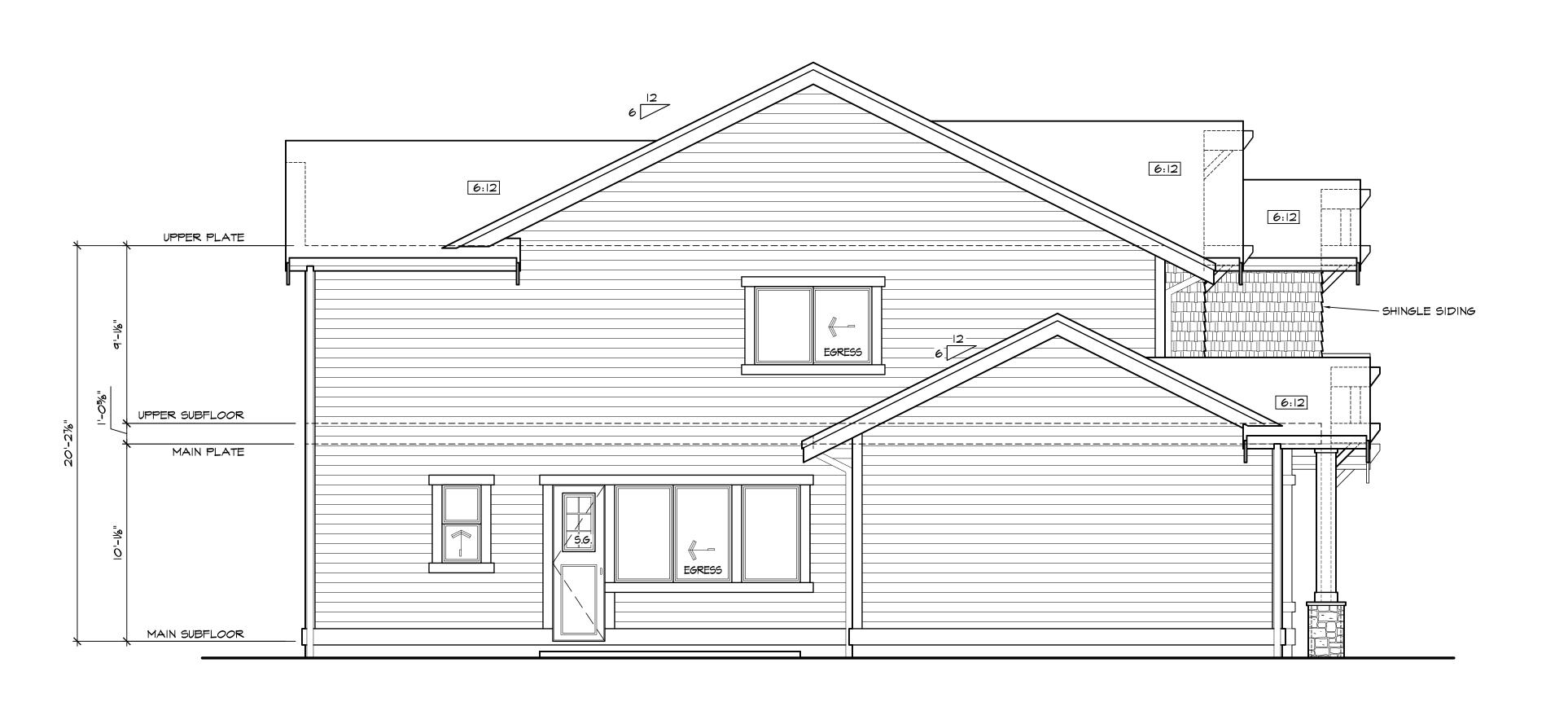
 6. PROVIDE WEATHER STRIPPING AT ALL EXTERIOR & GARAGE-INTERIOR
- PROVIDE CONTINUOUS GUTTERS & DOWNSPOUTS @ ALL EAVES, TYP.
 ROOF EAVES THAT ARE WITHIN 5'-O" OF THE PROPERTY LINE TO HAVE FIRE-BLOCKING FROM THE WALL TOP PLATE TO THE UNDERSIDE OF THE
- ROOF SHEATHING, PER I.R.C. TABLE R302.1(1) FOOTNOTE 'a'.

 9. ADDRESS OR HOUSE NUMBER TO BE POSTED AND PLAINLY VISIBLE
- FROM THE STREET FRONTAGE. NUMBERS TO BE MIN. 4" HIGH WITH ½" WIDE STROKE & CONTRASTING BACKGROUND.

 10. PROVIDE STAIRMAY ILLUMINATION PER I.R.C. R303.7 FOR INTERIOR STAIRMAYS AND R303.8 FOR EXTERIOR STAIRMAYS.
- 11. SEE COVERSHEET FOR ADDITIONAL NOTES.
 12. EXTERIOR GRADE TO SLOPE 6" IN 10 FEET FROM RESIDENCE PER I.R.C.



REAR ELEVATION SCALE: 1/4" = 1'-0"



SCALE: 1/4" = 1'-0"

SO46 REGISTERED ARCHITECT ARCHITECT STATE OF WASHINGTON

PAYMENT OF USE FEE IS DUE TO ARCHITECT NORTHWEST, INC. PRIOR TO CONSTRUCTION FOE EACH STRUCTURE BUILT FROM THESE PLANTHESE PLANS ARE COPYRIGHTED IN ACCORDANG WITH FEDERAL STATUTES. REPRODUCTION BY AN METHOD OF ALL OR PORTIONS OF THESE PLANS OF VARIATIONS THEREOF WITHOUT WRITTEN PERMISSIC FROM ARCHITECTS NORTHWEST, INC. IS STRUCTION ON THIS SHEET AS INSTRUMENTS OF SERVICATION ON THIS SHEAT AS INSTRUMENTS OF SERVICATION ON THIS SHEAT AS INSTRUMENTS OF SERVICATION OF THE PROPERTY CARCHITECTS NORTHWEST, INC.

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N O R T H W E S T

SE NE SUITE 100 WOODINVILLE, WA 98072

E: (425) 485-4900 EAV. (425) 485-4900 EAV. (425) 485-4900

SE 61ST, MERCER ISLAND WA 48040

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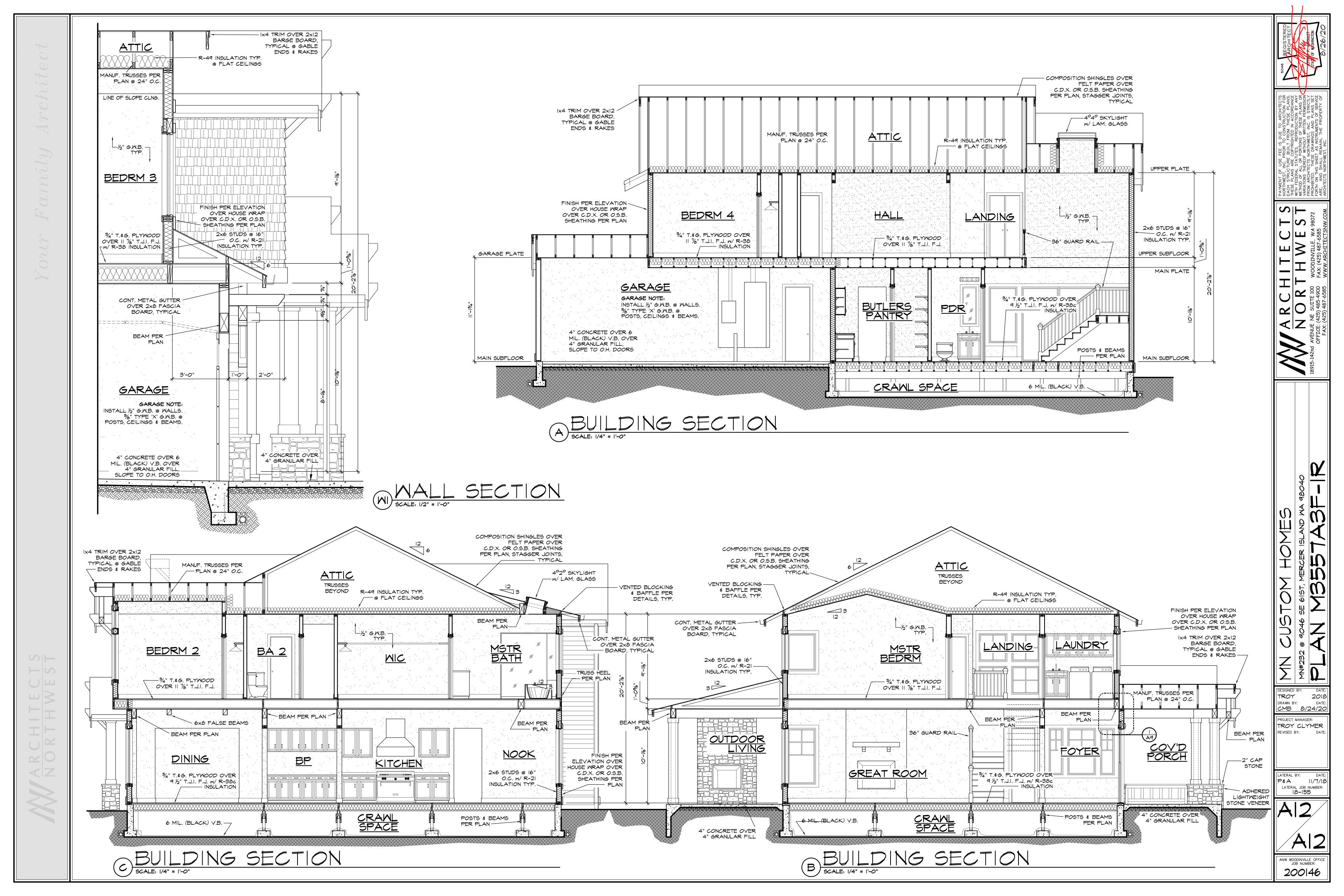
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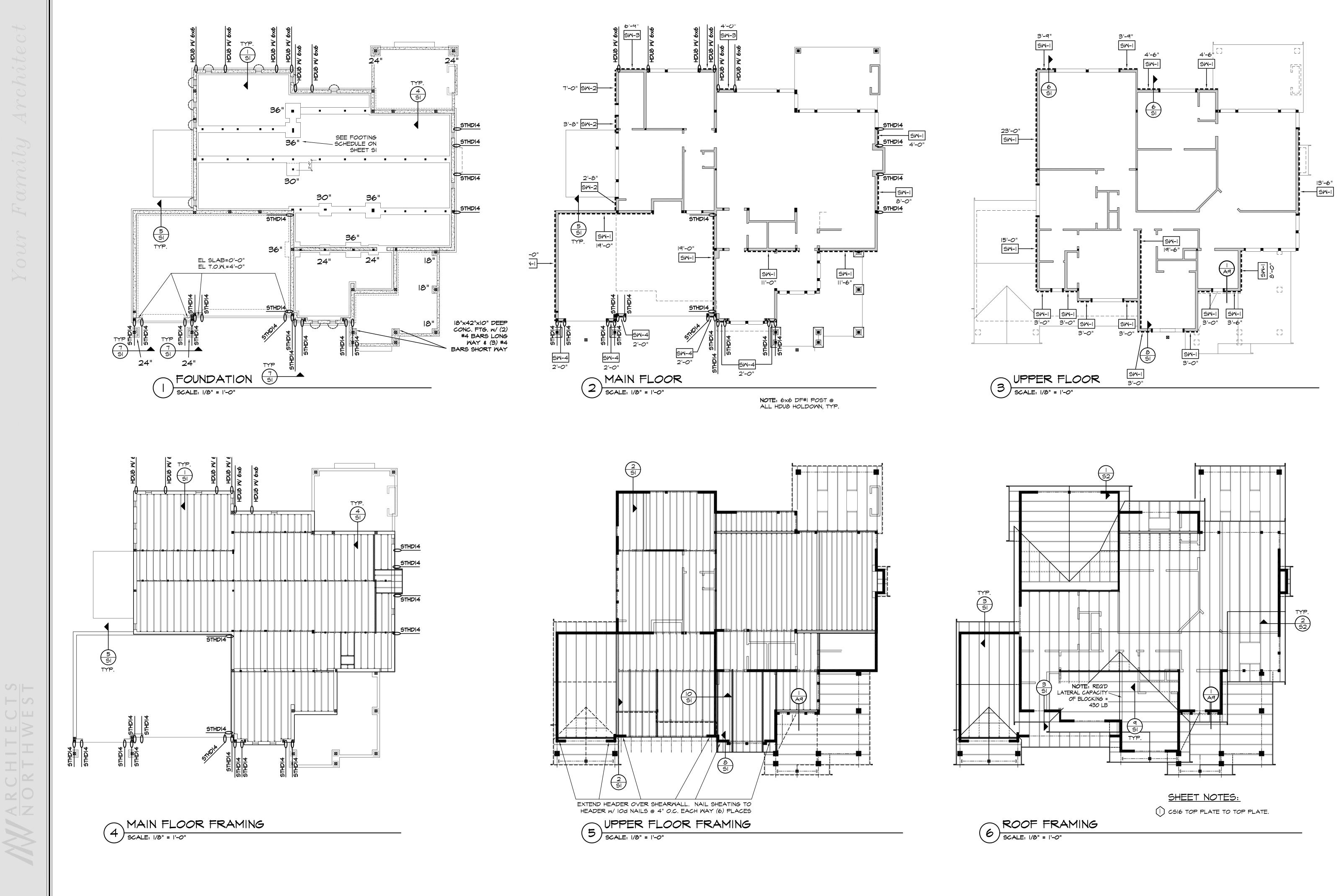
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A R C H I T E C T S

N O R T H W E S T

S-142nd AVENUE NE SUITE 100 WOODTINUTE WA 98072

L CUSTOM HOMES

32 @ 9046 SE 61ST, MERCER ISLAND WA 98040

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TROY 2018
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CMB 8/24/20

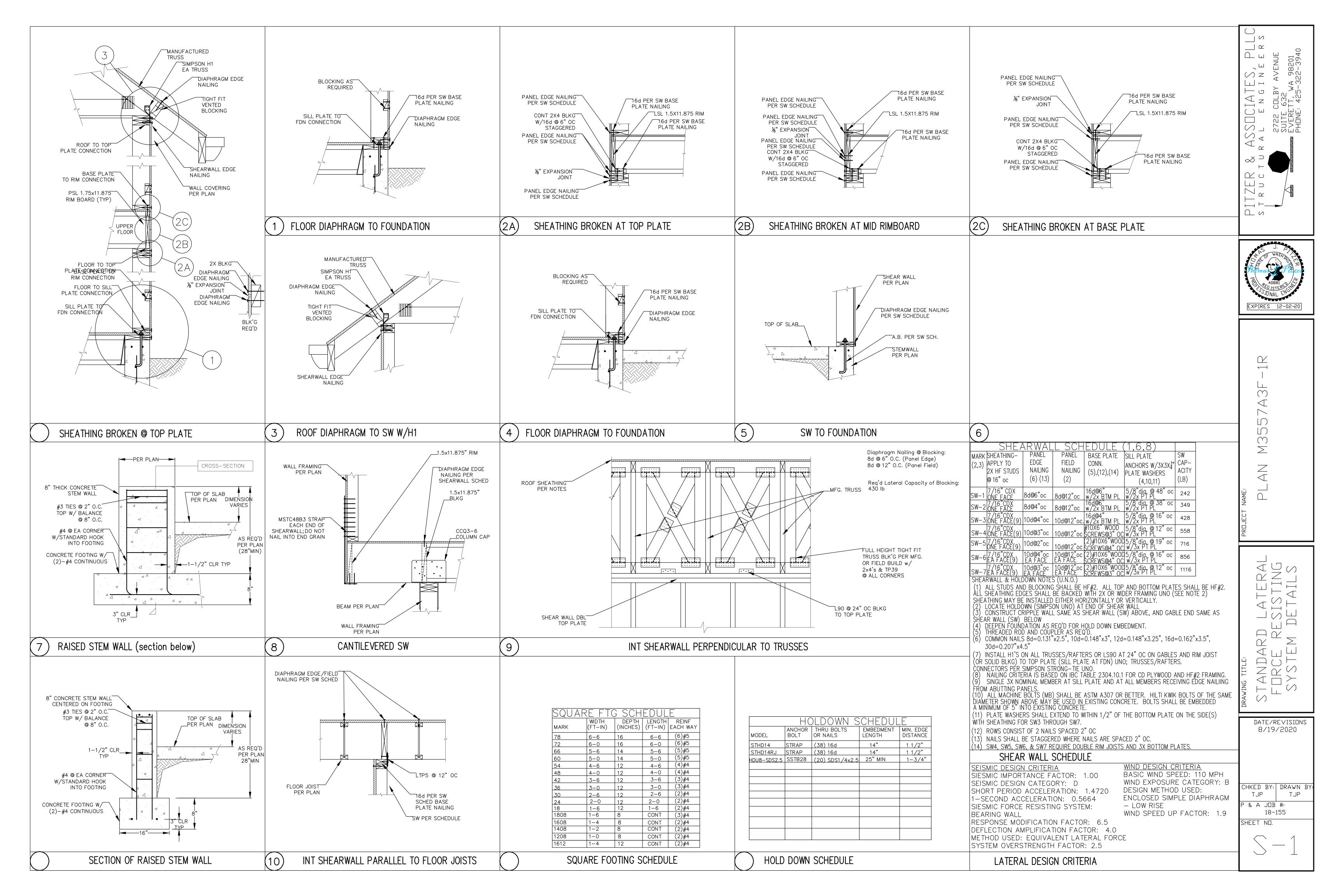
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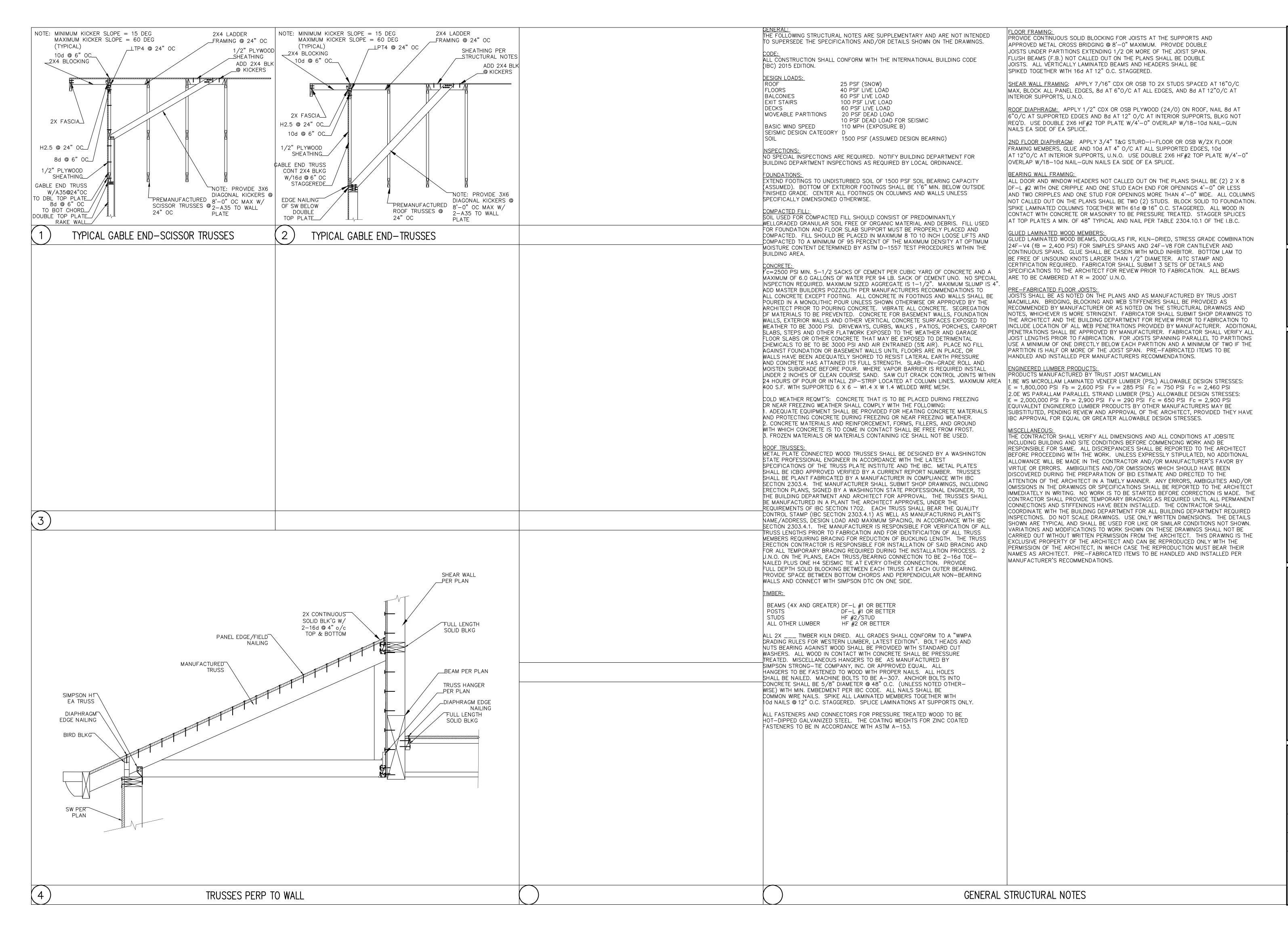
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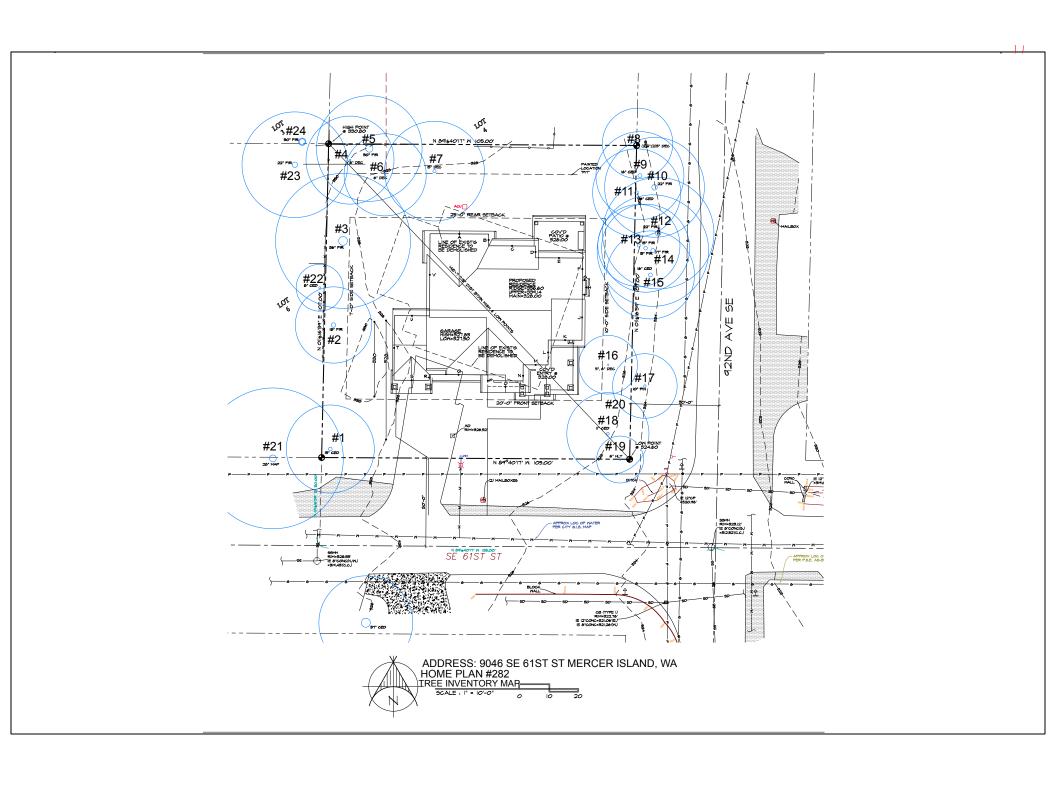
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EXPIRES 12-02-20

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DATE/REVISIONS 8/19/2020 CHKED BY: DRAWN E TJP TJP

⁾ & A J□B #: 18-155 SHEET NO.



SHOFFNER CONSULTING

14515 NORTH CREEK DRIVE A209 MILL CREEK, WA 98012 MOBILE: (206)755-9407 EMAIL: TONY@TONYSHOFFNER.COM

July 29, 2020

Joe Naeseth MN Custom Homes 1412 112th Ave. NE. Suite 200 Bellevue, WA 98004

RE: Tree Inventory Report- 9046 SE 61st St. Mercer Island, WA.

Joe:

This report report is provided to address the recent inventory I conducted of the trees on the property and those just off-site with at the address of 9046 SE 61st. St. in Mercer Island and the recent comments issued by the City of Mercer Island. The tree retention and replacement requirements for developing lots are specified in the revised section 19.10 of the Mercer Island City Code (MICC). Please see the the accompanying tree inventory map showing the trees I evaluated identified by number and the protection elements.

1.0 Professional Qualifications and Experience

Following is a summary of my qualifications and experience in the field of arboricultural consulting:

Education

- Bachelor of Science, Environmental Policy and Assessment, Western Washington University, 1993.
- Master of Science, Urban Horticulture, University of Washington, 1996.

Experience

- Consulting Arborist, Self Employed, 1999 Present.
- Wetland Biologist, Wetland Resouces, Inc., 1997-1999.
- Bellevue Natural Resources, 1996-1997.
- · Bellevue Botanical Garden, 1996.

Certifications

- ISA Certified Arborist #PN-0909A 1996 to present.
- Tree Risk Assessor Qualification 2013 to present.

In summary, I have over 20 years experience in the field of ecology and horticulture and more than 20 years experience as a consulting arborist here in the Pacific Northwest.

2.0 Tree Inventory - Methods and Results

I conducted visual evaluations of all the trees according to ISA standards and based upon many years conducting such evaluations on trees in the Pacific Northwest. I oberserved trees up close to inspect conditions of the trunk and from afar to inspect conditions in the crowns. All assessments were conducted according to the methods specified in the ISA Tree Risk Assessment Manual (Dunster, Julian A., E. Thomas Smiley, Nelda Matheny, and Sharon Lily. 2013. Tree Risk Assessment Manual. Champaign, Illinois: International Society of Arboriculture) and on nearly 20 years experience conducting such evaluations.

The investigations involved the gathering of the following information:

- Tree species
- Trunk diameter
- Crown spread diameter
- Location factors
- Health and condition notes (general level of vigor, defects, disease or pest problems)

3.0 Site Conditions and Proposed Development

The property is located in a residential neighborhood and is developed with a single family residence. The properties to the north and west 143 developed with single family residences. To the south ane east are public right-of-ways.

4.0 Tree Inventory and Exceptional Status

The City of Mercer Island's tree retention, replacement and protection requirements for developing properties are provided in chapter 19.10 of the revised Mercer Island City Code. Information on the existing trees are found in the accompanying tree evaluation data spread sheet.

Mercer Island prioritizes tree retention based upon the following criteria (a summary of the requirements):

- A minimum of 30% of trees 10 inches diameter and greater are required to be retained through development.
- The development proposal shall be designed to further minimize the removal of large trees and maximize large tree retention.
- Exceptional trees (24" greater dbh) are to be prioritized for retention.
- Trees that are healthy and have a greater likelihood of longevity.
- Trees that are part of a healthy grove (8 or more trees 10" dbh or greater that form a continuous canopy.

There is a total of 12 trees on the lot and 12 trees just off-site with driplines that extend onto the property. The tree inventory map shows the symbols for these trees as well as their numbers. One tree, labeled as #20, was not picked up in the survey therefore it doesnt have a symbol, rather just a number.

4.1 Tree Evaluation Data

There are 13 different species included in the inventory. Following are the common and scientific names and tricode acronyms for each of the tree species:

- Apple (Malus domestica) ApMd
- Austrian black pine (Pinus nigra) AbpPn
- Bigleaf maple (Acer macrophyllum) BLMAm
- Doulgas fir (Pseudotsuga menziesii) DFPm
- English holly (*Ilex aquifolium*) EHIa
- Hinoki cypress (Chamaecyparis pisifera) HCCp
- Japanese maple (Acer japonicum) JMAj
- · Norway spruce (Picea abies) NSPa
- Pacific yew (Taxus brevifolia) PYTb
- Western red cedar (Thuja plicata) WRCTp

The following tree data table provides a complete description of each tree's diameter, species, critical root zone, limits of allowable disturbance, health, condition and viability.

Tree # - Tree tag number

Species - Species tricode acronym

Dbh - Diameter in inches at 54" height

Crown - Diameter crown spread in feet

CRZ - Critical root zone determined by dripline radius and shown in radial feet.

LOD - Limits of disturbance radial feet. Determined by root plate radius for larger trees with higher crowns and determined by dripline radius for smaller trees with low crowns in order to protect the crown.

Cond - Condition code (1=Very good condition and health, young and vigorous. Viable; 2=Generally good condition and health, large and older and/or minor defects. Viable; 3=Fair condition and health, defects or health issues present but not yet a problem. Viable; 4=Poor condition and/or health, major defects and health issues. Non-viable.

Notes - General notes on trees with condition 1 and 2, more specific notes on defects and health of condition 3 and 4.

Lot - Lot 1 or Lot 2

Status - Exceptional (Ex) or Significant (Sig) and retain (Ret) or remove (Rem) Rep (Replacement) - Number of required replacement trees

Tree #	Species	Dbh	Crown	CRZ	LOD	Cond.	Notes	Status	Rep	Regulated
1	WRCTp	15"	28'	14'	14'	1	Excellent condition and health.	Sig Retain	0	Yes
2	DFPm	18"	26'	13'	13'	1	Excellent condition and health.	Sig Retain	0	Yes
3	DFPm	36"	40'	20'	20'	2	Good condition and health. Large and older.	Ex Retain	0	Yes
4	ApMd	8"	0'	N/A	N/a	4	Dead tree.	Ret	0	No
5	DFPm	30"	36'	18'	18'	2	Good condition and health. Large and older.	Ex Retain	0	Yes
6	ApMd	6.5"	14'	7"	7'	1	Excellent condition and health.	Retain	0	No
7	ApMd	13"	24'	12'	12'	1	Excellent condition and health.	Sig Retain	0	Yes
8	JMAj	6"	28'	14'	14'	2	Excellent condition and health.	Retain	0	No
9	WRCTp	16"	28'	14'	14'	1	Excellt condition and health. Off-site	Sig Retain	0	Yes

Tree #	Species	Dbh	Crown	CRZ	LOD	Cond.	Notes	Status	Rep	Regulated
10	DFPm	22"	36'	18'	18'	2	Good condition and health. Off-site.	Sig Retain	0	Yes
11	WRCTp	16"	28'	14'	14'	1	Excellent condition and health. Off-site	Sig Retain	0	Yes
12	DFPm	22"	36'	18'	18'	2	Good condition and health. Off-site.	Sig Retain	0	Yes
13	DFPm	20"	38'	19'	19'	3	Fair condition and health. Two trunk. Off-site.	Sig Retain	0	Yes
14	DFPm	17"	32'	16'	16'	1	Excellent condition and health. Off-site.	Sig Retain	0	Yes
15	WRCTp	16"	30'	15'	15'	1	Excellent condition and health. Off-site.	Sig Retain	0	Yes
16	ApMd	7"	18'	9'	9'	1	Excellent condition and health.	Retain	0	No
17	ABPPn	10"	22'	11'	11'	1	Excellent condition and health. Off-site	Sig Retain	0	Yes
18	HCCp	11"	26'	13'	13'	1	Excellent condition and health.	Sig Retain	0	Yes
19	EHla	6"	14'	7'	7'	1	Excellent condition and health.	Retain	0	No
20	PYTb	7.5"	12'	6'	6'	1	Excellent condition and health.	Retain	0	No
21	BLMAm	28"	44'	22'	22'	2	Good condition and health. Off-site	Ex Retain	0	Yes
22	WRCTp	8"	16'	8'	8'	1	Excellent condition and health. Off-site	Sig Retain	0	Yes
23	DFPm	22'	36'	18'	18'	2	Good condition and health. Off-site.	Sig Retain	0	Yes
24	DFPm	30"	40'	20'	20'	2	Good condition and health. Off-site	Ex Retain	0	Yes

Trees #8-#15 constitute a grove including one tree on site and 7 off-site within the right of way.

5.0 Limits of Disturbance Discussion and Impact Assessment

The City of Mercer Island requires Limits of Disturbance (LOD) be established as minimum distance of protection for all retained trees on site and for those just off-site with driplines that extend onto the property. Limits of development for each tree are provided in this report.

The LODs for exceptional and significant trees both on and off-site are set based upon the following criteria:

 The LOD for all trees is placed outside the drip line in order to provide protection for it so as to eliminate any damage.

There is no proposed encroachment into the LODs of any retained trees.

Given the proposed layout of the new house, none of the trees should be impacted so long as the required protection measures are installed and maintained throughout construction.

6.0 Tree Retention and Protecton Required

The City of Mercer Island requires the retention of 30% of all trees with diameters of 10" or greater. This project proposes the retention of all trees 10" or greater for a 100% retained value.

The City of Mercer Island requires the protection of retained trees and trees on adjacent lots with driplines that extend onto the developing property. The accompanying tree evaluation data spreadsheet provides the minimum limits of development (LOD) distance from each tree to be retained, both on and off site.

Tree protection fencing of the type required by the City is to be placed at the specified distance of the LOD of each tree prior to beginning any work on the property.

Signage identifying the tree protection area with required City of Kirkland tree protection guidelines and restrictions is to be posted on the fencing for each protected tree.

Any pruning of the off-site trees is to be done under the instruction of the project consulting arborist. Any additional impacts (such as grade changes) within the driplines of the off-site trees will need to be reviewed by the project consulting arborist.

7.0 Tree Replacement Plan

No trees on the property or off-site are proposed to be removed, therefore, no tree replacement is required.

8.0 Use of This Report and Limitations

This report is provided to MN Custom Homes to address the City of Mercer Island's requirements for tree inventory and retention plans for developing lots. Natural decline and failure of trees following development is not predictable, therefore, Shoffner Consulting and Tony Shoffner cannot be held liable for retained trees that die or fail prior to or following development of the property. The removal of surrounding forest cover, particularly in the direction of prevailing winds, in this case the south and southwest, exposes trees to environmental factors to which many are not adapted.

Cordially,

Tony Shoffner

ISA Certified Arborist #PN-0909A

TRAQ